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2001 Annual Report

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THREE-FIVE SYSTEMS, INC.®

We Display Excellence

To Our Stockholders

Sales for the year were \$119.1 million, a decrease of nearly 26% percent from the previous year. Not including special charges reported in the second quarter, the company recorded a net loss for the year of \$12.7 million, or \$0.59 per share compared to net income of \$14.8 million, or \$0.69 per share for the year 2001. The net loss for the year 2001 including special charges, was \$17.8 million, or a loss of \$0.83 per share.

Operating expenses for the year totaled \$27.7 million compared to \$22.8 million the previous year. Operating expenses for the LCD module business were nearly flat in 2001; thus, the increase in operating expenses for the company during the year can be attributed primarily to increases in LCoS microdisplay development expense. Approximately \$13.4 million of the company's operating expense was related to the development of its new LCoS microdisplay technology. That was up from \$9.4 million in 2000.

We ended the year with \$156.1 million in cash and liquid investments, no outstanding balance on our working capital line of credit, and no long-term debt. Overall, the company had a net operating cash outflow in 2001 of \$4.1 million. In the fourth quarter, however, the company generated positive operating cash flow of \$4.7 million, despite an operating loss. Because of the company's strong financial condition and cash position, we were able to continue throughout 2001 to invest in our emerging microdisplay business. The company's inventory was significantly reduced through 2001 from \$20.5 million at the start of the year, to \$15.6 million at the end of the year.

Total capital outlays for 2001 were \$8.3 million, most of which was expended in the first half of the year, for tooling, production and test upgrades to the company's LCoS microdisplay production equipment in Tempe, Arizona.

THE YEAR IN REVIEW

The strategy of Three-Five Systems since my arrival in 1999 has been focused on three objectives: First, to maintain market share with our existing customers. Second, to diversify our business in terms of customers and markets. And third, to launch microdisplays into the market. While the first two have been long-term focal points for us, the launch of the new microdisplay technology is a brand new experience for all of us.

We remained steadfastly focused on these objectives, despite the challenges we faced throughout the year, and the fact that our markets and economic environment have changed substantially. Although the year had its disappointments, our focus, combined with our financial strength, allowed us to make proper business decisions, to position our company as a leading provider of not only today's technologies, but the display technologies of tomorrow.

Let me review our position and our plans with regard to each of these areas of our business.

CORE DIRECT VIEW DISPLAY BUSINESS

Our objective to maintain market share with our customers has historically been driven by the fact that the high-volume, low-price, monochrome LCD market remained a profitable one in which to do business. Frankly, that situation changed during the year when handset inventory surpluses coupled with reduced growth rates caused a dramatic downturn in the handset market. This situation was exacerbated by tremendous excess capacity in monochrome LCD displays. As a result, certain customers increasingly expected product pricing well below industry costs. That expectation continued despite our extensive and effective cost-reduction activities.

Our objective to maintain market share with our customers remains in place. However, we are convinced that bottom-line profitability is more important than generating revenue that yields a negative gross margin. Therefore, while we will continue to pursue business with existing and new customers for applications in the cell phone market, we have become highly selective regarding the programs we pursue. We will decline participation in opportunities that offer very low or negative margins. At the same time, we will work aggressively to grow our business with new and existing customers that will benefit from our portfolio of advanced display technologies.

We have great confidence in this strategy for several reasons. First, we have made progress in our objective to diversify our business in terms of customers and markets. The customer-diversification effort began to yield results in 2000, when we secured 23 new customer design wins. Despite the economic environment that we faced in 2001, 16 of those programs made it into initial production, and ten of the 16 remain active programs that are expected to contribute to revenue in the coming year.

This diversification effort continued throughout the year, as we secured another ten design wins. Seven of the ten wins are with new customers, and eight of the ten are for applications outside the cell phone market. We also secured our first color win in 2001. In 2002 we have already begun securing design wins, some of which call for color. So the momentum for customer and market diversification along with color technology are here and increasing.

We also have confidence in this strategy because we believe there are many opportunities within the monochrome LCD market that we can profitably address. In 2001 we pursued and won customers with unique applications in brand new markets. Our relationship with Synaptics, a leading provider of touchpad technology, yielded a unique product line called cPad. As we go to press with this report, we are pleased to convey that Toshiba has already begun to incorporate this exciting new LCD/touchpad technology into its new line of Satellite brand laptop computers.

Finally, our confidence is also bolstered by the fact that we have expanded our display technology portfolio in 2001 by adding advanced color display products. This is a profound change from one year ago. With color applications emerging in so many markets, and the willingness of key partners to work with us for customization of their color offerings, we believe that we can continue to win new customers in all of the markets we serve. The industry-wide move to color is clearly underway, and we plan to be a strong participant.

A significant event for us in 2001 was the addition of OLED technology to our advanced display portfolio. OLEDs, or organic light emitting displays, utilize advanced polymer materials to produce bright, high-contrast, emissive images. Though it is a technology still under development, we have met with potential customers worldwide that have applications ranging from cellular phones, to test instruments, to entertainment systems, and more.

MICRODISPLAYS

Our objective has been, and remains, getting microdisplays to the market. Although we were disappointed that RCA was not able to ship its Scenium LCoS microdisplay television in 2001 as originally scheduled, we are pleased that RCA has commenced initial, limited production shipments during March of 2002.

I believe that the LCoS microdisplay industry will materialize when validation of the technology occurs. That will happen when products using LCoS microdisplays reach the consumer. At the Consumer Electronics Show this year, I saw that validation taking place when I viewed televisions, monitors, and multimedia projectors containing microdisplay devices, some of them our own. It is

continued on inside back cover

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2001

Commission file number 1-4373

THREE-FIVE SYSTEMS, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction
of Incorporation or Organization)

86-0654102
(I.R.S. Employer Identification No.)

1600 North Desert Drive, Tempe, Arizona 85281
(Address of Principal Executive Offices) (Zip Code)

(602) 389-8600
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Exchange Act:

<u>Title of Each Class</u>	<u>Name of Each Exchange on Which Registered</u>
<u>Common Stock, par value \$.01 per share</u>	<u>New York Stock Exchange</u>

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.
Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. []

The aggregate market value of Common Stock held by nonaffiliates of the registrant (18,126,880 shares) based on the closing price of the registrant's Common Stock as reported on the New York Stock Exchange on March 11, 2002, was \$254,863,933. For purposes of this computation, all officers, directors, and 10% beneficial owners of the registrant are deemed to be affiliates. Such determination should not be deemed to be an admission that such officers, directors, or 10% beneficial owners are, in fact, affiliates of the registrant.

As of March 11, 2002, there were outstanding 21,510,463 shares of the registrant's Common Stock, par value \$.01 per share.

Documents Incorporated by Reference

Portions of the registrant's definitive Proxy Statement for the 2002 Annual Meeting of Stockholders are incorporated by reference into Part III of this Form 10-K.

ANNUAL REPORT ON FORM 10-K

FOR THE YEAR ENDED DECEMBER 31, 2001

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Statement Regarding Forward-Looking Statements

The statements contained in this report on Form 10-K that are not purely historical are forward-looking statements within the meaning of applicable securities laws. Forward-looking statements include statements regarding our "expectations," "anticipation," "intentions," "beliefs," or "strategies" regarding the future. Forward-looking statements also include statements regarding revenue, margins, expenses, and earnings analysis for fiscal 2002 and thereafter; technological innovations; future products or product development; our product development strategies; potential acquisitions or strategic alliances; the success of particular product or marketing programs; the amounts of revenue generated as a result of sales to significant customers; and liquidity and anticipated cash needs and availability. All forward-looking statements included in this report are based on information available to us as of the filing date of this report, and we assume no obligation to update any such forward-looking statements. Our actual results could differ materially from the forward-looking statements. Among the factors that could cause actual results to differ materially are the factors discussed in Item 1, "Business - Special Considerations."

PART I

ITEM 1. BUSINESS

Introduction

We design and manufacture display modules for use in the end products of original equipment manufacturers, or OEMs. We currently specialize in custom liquid crystal display, or LCD, components and technology. We collaborate closely with our customers in providing our design and manufacturing services. Our LCD modules are used in mobile handsets and other wireless communication devices as well as in the data collection, medical electronics, and other commercial and consumer marketplaces. We refer to this business as our direct view display business. In 2001, Motorola was our largest customer. In addition to our direct view display business, we are pursuing the commercialization of our liquid crystal on silicon, or LCoS, microdisplays following substantial research and development over the past several years. We market our services in North America, Europe, and Asia primarily through a direct technical sales force.

Industry Overview

Liquid Crystal Displays

Prior to the introduction of LCDs in the 1970s, most commonly used displays and indicators had substantial limitations as to their use, especially in terms of size, life, and power consumption. LCDs were developed in response to these limitations, especially the demand for greater information content and less power consumption than was possible using light emitting diode, or LED, technology. LCDs, sometimes called flat panel displays, provide high-information content displays at competitive prices. LCDs now appear in products throughout the communications, office automation, industrial, medical, and commercial electronics industries. LCDs are one of the fastest growing of the established display industry segments.

An LCD modifies light that passes through or is reflected by it, rather than emitting light like an LED. An LCD generally consists of a layer of liquid crystalline material suspended between two glass plates. The liquid crystals align themselves in a predictable manner when stimulated electrically. The alignment produces a visual representation of the desired information. LCDs can display information in black and white or in a wide range of color combinations. LCD displays consist of a matrix of dots, called pixels, which are arranged in rows and columns that can be selectively energized to form letters or pictures. A principal advantage of LCDs over other display technologies, such as LEDs, is the ability to include thousands or even millions of pixels in a single display, which allows for greater information content.

There are two types of LCDs: active matrix and passive matrix. Active matrix LCD displays are relatively complex devices that require manufacturing operations involving very large capital investments. Historically, active matrix LCD displays have been used in larger, high-information content applications, such as laptop computers, but they are beginning to appear in mobile devices, such as cellular handsets and PDAs. Passive matrix LCD displays are less complex and less expensive to manufacture. Currently, passive matrix LCDs are the primary display used in applications such as mobile handsets and PDAs, as well as in office equipment, data collection terminals, point-of-sale equipment, medical devices, transportation instrumentation, and industrial instruments and controls.

The Custom Mobile LCD Market

We estimate that the worldwide market that we service for custom passive and small form factor (ten-inch or less diagonal) active matrix LCD modules was approximately \$6.6 billion in 2001. This market includes displays used in mobile handsets and other communications equipment; business, industrial and transportation equipment; and computer and consumer products. According to industry resources, the worldwide market for LCDs in mobile handsets was slightly under 400 million units in 2001.

The increasing complexity and functionality of handheld products, such as wireless computing and communication devices, require OEMs to increase the visual performance and information content of the displays incorporated into their products. At the same time, the market continues to demand that OEMs incorporate displays with reduced power requirements and lower costs. Custom passive LCDs, including both monochrome and color

displays, address these requirements for high performance, increased information content, low power, and low cost. In addition, active matrix displays are rapidly making advances in cost reduction and power consumption and are beginning to be used in mobile applications.

OEMs also seek ways to differentiate their products from the products of their competitors. Custom-designed display modules provide OEMs a cost-effective means to achieve this differentiation. In designing its product, an OEM must determine whether to use standard "off-the-shelf" display modules, to design its own custom display modules for production by a custom display manufacturer, or to enter into arrangements with a third party for custom display design and production. In making a decision to engage third parties for custom design and production, OEMs recognize that standard "off-the-shelf" displays make it more difficult to differentiate their products from those of their competitors. In considering whether to design their own display modules, OEMs often recognize that their greatest strengths consist of consumer brand name recognition, market research and product development expertise, and highly developed sales and distribution channels. Advanced design and manufacturing processes require increasing investments for research and development, personnel, and equipment. Competitive market conditions require a shorter period of time from product conception to delivery, product differentiation, improved product user friendliness, and continually enhanced product performance and reduced product cost during the life cycle of the product. As a result of these factors and increasingly sophisticated and complex technology, it has become more difficult for even the leading OEMs to maintain the necessary technology, expertise, personnel, and equipment to design and produce internally all of the various components necessary for their products. As a result, there has been a trend toward outsourcing the design and production of components such as display modules.

In addition to design and production, OEMs have increased their use of third-party suppliers to add additional components to their products. This permits the integration of more of the manufacturing steps into fewer locations. This trend toward integration and outsourcing decreases the number of suppliers necessary to produce a final product and results in lower costs.

The Emerging Microdisplay Market

Market trends demand high-information, power-efficient displays with increasing functionality and smaller sizes at relatively low costs. Microdisplays based on liquid crystal on silicon technology provide a response to those demands.

Liquid crystal on silicon microdisplays are a form of active matrix LCD in which liquid crystalline material is suspended between a glass plate and a silicon backplane rather than between two glass plates. The silicon backplane, which is essentially an integrated circuit, provides drive signals for each pixel element of the display as well as logic functions, such as serial to parallel conversion and data storage. Because CMOS silicon integrated circuits, which is a highly developed technology, form the basis of these displays, liquid crystal on silicon technology permits a very high-information, high-performance display in a small size and at a relatively low cost.

Microdisplays are no larger than a thumbnail, but contain all of the information appearing on a high-resolution personal computer screen. The tiny image on a microdisplay can be projected onto a screen or other surface for individual or group viewing or used in a portable application that is viewed through a magnifying device similar to a viewfinder. Various types of projector applications represent the most common current use of microdisplays. Projectors can cast the information on a distant large screen, as in audio-visual front projectors, or shine the image through a translucent screen, as in rear projectors. Potential initial microdisplay applications include use in large-screen televisions, business projection equipment, and computer monitors. Other potential applications include a wide variety of portable devices, such as wireless Internet access devices, mobile handsets, pagers, and PDAs as well as wearable computing equipment using head-mounted displays, which allow hands-free access to large amounts of information.

A well-developed front projector market currently exists. These products are typically referred to as audio-visual projectors and are generally fixed or portable products used in business applications. Most front projectors currently use microdisplays that are either transmissive polysilicon or digital micro-mirror devices, also called DMDs. We believe, however, that reflective liquid crystal on silicon technology will provide more information at a lower cost.

Emerging market segments are beginning to develop for large, cost-effective, higher-resolution television screens and monitors. Current display technologies for digital and high-definition televisions and computer monitors encounter serious barriers related to cost, resolution, and dimensions when used for high-resolution large screens. Many companies have begun incorporating microdisplays into large, high-resolution screens to enable affordable display solutions. As in the front projection marketplace, we believe that *LCoS* microdisplays can provide more information at a lower cost as compared with transmissive polysilicon or DMDs.

Significant development efforts are currently being directed to portable microdisplays as a potential method for delivering high-information content at low cost and with low power consumption in mobile, hand-held communication devices. It is widely assumed that converged voice and data communication devices have the potential to become a new class of products in mobile communications, potentially integrated with PDA functions, such as phonebooks and calendars. Delivery of high-information content over a small, direct-view display in a handheld device, however, presents difficult technological challenges. Portable microdisplays used with a viewfinder offer a potential solution because they can deliver as much information as a computer monitor in a very small, lightweight, and power-efficient package.

The portable microdisplay market is just beginning to develop. Market potential currently is uncertain and is limited by such factors as the availability of sufficient wireless communication bandwidth, the uncertainty of customer acceptance, and the possibility of alternative technologies. Nevertheless, many companies have prototype programs underway to develop new converged mobile communication products with large information content at low cost, and many of these companies are assessing the use of *LCoS* microdisplays for use in these products.

The Three-Five Approach

We seek to provide our customers with high-performance, information-rich, low-power consumption displays that have competitive advantages in terms of size, cost, and product differentiation. To accomplish this goal, our research and development activities focus on technological developments intended to meet the current and future requirements of our customers. We add value for our customers through our ability to integrate the design and production process, which reduces the time between product conception and market introduction. Our emphasis on customization and technological leadership has positioned us to develop new custom product solutions for our customers as they seek displays with more information content at lower cost.

Our custom product solutions provide OEMs with the following benefits:

- access to specialized design and manufacturing technology and expertise;
- accelerated design process and reduced design and manufacturing costs through the use of our specialized personnel, equipment, and facilities;
- reduced reliance on multiple suppliers for components and integration of their production processes; and
- the ability to concentrate their own resources on the design, production, and distribution of their core products.

By eliminating the duplication and overlap of investment and resources, we and our OEM customers are able to work together more economically. We concentrate on the development of our display technologies and their applications to products, while our customers devote time and resources on market development for these products.

Our historical target market consists of high-end monochrome passive matrix LCD modules of ¼ VGA (320 x 240 pixels) or less resolution, primarily those having smaller than ten-inch diagonal screen sizes. We do not address low-end LCD display markets, such as watches and calculators. In 2001, we added color passive and active matrix LCD technologies for small display product applications. Our target market for *LCoS* microdisplays consists of displays of SVGA (800 x 600 pixels) or higher resolution.

Direct View Display Strategy

Our strategy in our direct view display business is to enhance our position as a leading worldwide supplier of custom-designed and manufactured displays for application in various high-growth segments of the electronics industry. Key elements of our strategy include the following:

Target Leading Customers in High-Growth Industries

We identify industries that we believe have the greatest long-term potential for growth. We recognize that our growth and development is closely aligned with the growth and development of the industries we serve. Current targeted industries include mobile handsets and other wireless communication, data collection, office automation, medical equipment, and other commercial and consumer marketplace products.

Within each industry, we target leading companies that we believe would benefit from our design and manufacturing services. Targeted customers typically are Fortune 1000 manufacturing companies whose products require display devices. Our sales and engineering staffs then attempt to demonstrate the benefits that the potential customer would derive by outsourcing to us the design and production of display devices required in their products. Recently, we have refocused our efforts on high-end products where our advanced technologies, design expertise and response time provide an advantage over more commodity-oriented LCD vendors.

Once we establish a relationship with a new customer, we endeavor to develop new programs for other product groups within the customer's business. For this reason, we specifically target customers with multiple divisions or product lines.

Expand Customer Base

We intend to continue our efforts to expand our customer base. We also plan to target specialized markets that have both volume requirements and require a more complex display solution. We will continue to seek opportunities in growing and emerging markets, both in the United States and internationally.

Establish Close Relationships with Customers

We seek to establish strong and long-lasting customer relationships through our fundamental business practice, which we refer to as "customer partnering." Customer partnering involves aligning our prospects with those of our customers and seeking to make our engineering and production staffs seamless extensions of the product design and production departments of our customers. This includes our engineers spending a significant portion of their time assisting customers with their own engineering efforts at their facilities. In addition, our customers' engineers sometimes spend time in our facilities.

We stress product solutions for our customers' products. We view each customer's new product as our own and take pride in creating and implementing innovative engineering solutions that differentiate the customer's product from competitive products. In connection with this philosophy, we have positioned ourselves to provide a rapid response to our customers and their worldwide operations.

To achieve our customer partnering goal, we emphasize corporate cultures, customs, and communications that complement those of our customers. A thorough understanding of our customers' products and business goals enables us to anticipate customer needs and to develop new design and production solutions for their products.

We continually attempt to enhance the competitive position of our customers by providing them with innovative, distinctive, and high-quality display devices on a timely and cost-effective basis. To do so, we work continually to improve our productivity, lower our costs, and speed the delivery of our product solutions. We endeavor to streamline the entire design through delivery process by maintaining an ongoing engineering and manufacturing improvement effort.

We continue to provide customer support after product design has been completed and production has been commenced. Through such follow-on activity, we conduct quality enhancement and cost-reduction efforts to maintain the competitiveness of our customers' products.

Provide Advanced Custom Design and Manufacturing Services

We seek to design, prototype, and manufacture, on a timely and cost-effective basis, a wide range of innovative, distinctive, and high-quality display devices for operational control and information display functions required in the end products of OEMs. Our design processes utilize advanced computer-aided design software to provide custom solutions for customers' products in time frames and on cost bases that we believe are substantially shorter and lower-priced than industry norms.

Until the end of the third quarter of 2001, we operated our highly automated, high-volume LCD manufacturing line in Arizona to produce the majority of our LCDs. In order to enhance cost-effectiveness and take advantage of lower cost manufacturing environments, we made the decision in 2001 to move the LCD line to Asia. We expect that the high-volume LCD line will resume production in Asia later in 2002. Until that time, we are outsourcing all of our LCD glass fabrication. In addition, we have entered into relationships with manufacturers of color LCDs. Under these relationships, we will custom design the color LCD screens for our customers' unique applications and then outsource the manufacture of these screens.

Regardless of whether we manufacture or outsource LCD screens, we perform all back-end and module manufacturing for our products. We utilize advanced, flexible manufacturing systems for high-volume module assembly in Manila and Beijing. We believe our manufacturing facilities provide us with a competitive advantage in meeting the custom LCD needs of our customers. We anticipate that our ability to design, prototype, and manufacture customized product solutions will be enhanced by the expansion of our engineering personnel, our increased design capacity, and our ability to meet our LCD requirements. We will continue to explore the most advanced and cost-efficient production methods for each product solution.

Exceed Customer Requirements Through Speed and Efficiency

We emphasize innovative design and manufacturing techniques to improve the speed, efficiency, and performance of our design and manufacturing services. This enables our customers to address the pressure to reduce the lead times for market introduction of their products. As part of our development process, we continually improve and modify our design and manufacturing processes, controls, and methodology in an effort to support our customers' requirements.

Leverage Research, Development, and Engineering

We continually strive to develop and acquire new technologies and utilize technological developments in order to provide practical solutions for our customers. We conduct an active research and development program designed to:

- continually improve our products and create new products;
- increase our efficiency;
- reduce our costs;
- improve the speed, efficiency, and performance of our design and manufacturing services;
- develop new design and manufacturing processes and techniques; and
- enhance the quality, cost-effectiveness, and value of our services.

We plan to expand our research and development efforts through increased expenditures and the hiring of additional personnel to meet the expectations of our customers and to satisfy our goal to design and produce the most advanced product solutions on a timely and cost-effective basis. In addition, we are continuing the development and expansion of existing LCD technologies as well as new technologies, such as polymer light emitting displays. In 2001, we formed a company with DuPont Displays to develop and commercialize OLED technology. Under that arrangement, we will supply design, engineering and module manufacturing services and DuPont Displays will supply OLED screens and development services.

LCoS Microdisplay Strategy

Our strategy in LCoS microdisplays is to become a leading worldwide supplier of microdisplays for use in both projection and mobile applications. Key elements of our strategy include the following:

Develop Leading Customers in Targeted Industries

We identify industries that we believe have the greatest potential for using microdisplays, both immediately and in the future, and we focus on the leading companies in those industries. We believe that the use of our microdisplays by leading companies will encourage other companies to adopt this new technology. Current targeted industries include large screen televisions, AV projectors, monitors, mobile handsets, and other mobile wireless communication, medical equipment, and other commercial and consumer marketplace products.

Establish Close Relationships with Customers; Provide Advanced Products and Manufacturing Services

As in our direct view display business, we seek to establish strong and long-lasting customer relationships through "customer partnering." This involves aligning our prospects with those of our customers and seeking to make our engineering and production staffs seamless extensions of the product design and production departments of our customers.

Unlike our direct view display business, however, we are focusing on standard products in microdisplays. We seek to work closely with our customers and potential customers to understand their display needs and then design products that attempt to meet those needs, both from a technological and cost point of view.

We utilize an advanced manufacturing line in our Tempe facility to manufacture and test LCoS microdisplay imagers. We continue to increase our production personnel and add sophisticated manufacturing equipment to meet expanding capacity requirements. We will continue to explore the most advanced and cost-efficient production methods for each product solution. As part of our development process, we continually improve and modify our design and manufacturing processes, specifications, controls, and methodology in an effort to support our customers' requirements.

Continue Research, Development, and Engineering

We consider microdisplays a new product category that is in the process of starting high-volume manufacturing, but which requires substantial, additional development work. Therefore, we will continue our active research and development program designed to:

- continually improve our microdisplay products and create new products;
- increase our yields;
- reduce our costs;
- develop new design, test, and manufacturing processes and techniques; and
- enhance the quality, cost-effectiveness, and value of our services.

We plan to continue our substantial focus on research and development efforts and we may even increase expenditures and hire additional personnel to meet the expectations of our customers and to satisfy our goal of designing and producing the most advanced product solutions on a timely and cost-effective basis. We recently acquired the intellectual property of Zight Corporation. As a result, we will also expand our efforts to enhance the products initially developed by Zight.

Products and Services

We currently engage in the design and manufacture of direct view display modules, microdisplay imagers, and the development and commercialization of manufacturing technologies for use in various products of OEMs.

Direct View Display Business

Most of our revenue currently results from the sale of custom designed LCD display modules. A manufacturer of a complete system or product requiring a specific type of visual display, such as a mobile handset, medical instrument, business machine, or hand-held data collection device, represents a typical buyer for a custom LCD display module. For each custom display module, we work directly with our customer to develop and produce the original design and to manufacture the display module in accordance with the customer's specifications. At a minimum, each module includes an LCD, a custom LCD driver, and a flexible connector. We also provide value-added services by assembling additional components onto the module, such as keypads, microphones, speakers, light guides, and optics. In 2001, LCD custom display modules accounted for approximately 95% of our net sales.

We have developed a sophisticated design process to meet the specific needs of our customers' applications. Each design project normally involves a cross-functional team of our engineers who are assigned to a customer program. The team consults with the customer's engineers throughout the design, prototype development, and manufacturing process. We continue to supply value-added engineering support after the design solution has been developed and integrated into the manufacturing process in an ongoing effort to provide customers with product performance enhancements and cost-reduction opportunities.

The difficulties in developing a custom LCD module include frequently changing customer expectations, evolving customer requirements, and changing customer end-product specifications. These factors result in lengthy lead times for market introduction of customers' products. To overcome the traditional obstacles involved in custom design and development, we have developed the four-phase program development process described below. We combine our program development process with our philosophy of being a "seamless extension of our customer." This results in a very flexible, responsive, accurate, and fast development cycle that enables our customers to introduce their products into the market rapidly. Our program development process consists of the following phases:

- *Feasibility and concept phase.* We work closely with our customer to understand its requirements. Customer input varies from rough sketches to detailed specifications. Experienced LCD module design engineers work to develop conceptual solutions to customer requirements that include both design and cost parameters.
- *Prototype phase.* We conduct a design review with the customer; complete a proposed design, including the electrical, mechanical, and optical features of the LCD display module; and deliver a prototype to the customer.
- *Pilot phase.* We perform a thorough design review with our customer, involving an analysis of performance, cost, and volume production considerations. A successful pilot phase results in the completion of any design changes, the ordering of the tooling required for production, and the delivery of manufacturing samples.
- *High-volume production phase.* We complete any required changes in the manufacturing process, receive necessary tooling, and commence high-volume production. All high-volume module production takes place either in Manila or Beijing.

LCoS Microdisplay Business

The display market demands continually greater information content at reduced prices. In response to these demands, we are pursuing the commercialization of LCoS microdisplays following several years of extensive research and development activities. Our LCoS technology provides very high information content in a small size and at an expected relatively low cost. The information presented by these displays is magnified for view, generally either by a projector or by a viewfinder. We believe that the inherent capability of our LCoS technology provides a cost-effective solution to increased information demands.

We are developing a broad range of LCoS microdisplay products to offer customers. The table below sets forth various resolutions with approximate pixel count, or the number of color dots on a screen, and potential uses for our LCoS microdisplays. We currently have multiple LCoS applications, which we have prototyped for customer evaluation. We are focussing on products with the capability to produce all of the following resolutions:

<u>Resolution</u>	<u>Pixel Count</u>	<u>Applications</u>
SVGA	480,000	Hand-held devices, such as PDAs or mobile handsets, and head-mounted displays or wearable computers
XGA	780,000	Low-end portable audio-visual projectors
SXGA	1,300,000	High-end portable audio-visual projectors, rear-projection monitors, and high-definition television
HDTV 1	922,000	High-definition digital televisions and imaging applications
HDTV 2	2,000,000	High-definition digital televisions and imaging applications

We believe that the initial markets for our *LCoS* microdisplay products will be in front projectors, large screen television sets and computer monitors, and near-to-the-eye applications, such as wearable displays. Currently, the front projector, and digital and large screen television markets are being served by active matrix polysilicon microdisplays and DMD microdisplays. Polysilicon microdisplays are manufactured by two large Japanese companies. At resolutions above XGA, these products generally need special optics and are generally larger and more expensive than anticipated costs for *LCoS* microdisplays. DMD microdisplays are a proprietary product of Texas Instruments. DMDs are relatively expensive to manufacture, especially for larger devices with higher resolutions, and involve a high cost of capital. The expected relatively low cost for *LCoS* microdisplays makes them more suitable for competitive consumer marketplaces.

We believe another market for *LCoS* microdisplay products will be in personal display system applications, such as converged wireless products requiring high-information content displays for e-mail and access to the Internet. Use of an *LCoS* microdisplay in a personal display system application would enable a person to carry a portable device capable of delivering information at the same SVGA resolution as the person's desktop or laptop computer. This has the potential to allow portable access to the Internet and critical information, such as calendars, maps, e-mail, and documentation, in a handheld product. The high resolution of the device would avoid scrolling or time-consuming text conversions in accessing the Internet for needed information. Other potential viewfinder applications would be in entertainment and medical devices.

We plan to offer a range of *LCoS* product solutions with different levels of integration from individual imagers to fully integrated display systems. In addition, we have been working with optical companies that are interested in developing optical light engines for sale to OEMs that manufacture monitors and televisions. A light engine consists of a projection lens, color management system, illumination systems, including a lamp, and the microdisplays. *LCoS* microdisplays require different optics than those employed when using transmissive polysilicon microdisplays.

We have undertaken extensive development efforts in *LCoS* products, and we expect to incur substantial losses in the microdisplay business until volume production of *LCoS* microdisplays occurs. We initially expected volume production of *LCoS* microdisplays to commence in 2001. High-volume production was delayed, however, due to manufacturing and yield issues in our manufacturing line as well as product delays by our customers.

Sales and Marketing

We approach sales and marketing on three levels: engineer to engineer, salesperson to procurement, and factory to factory. Our approach is to treat an existing program as a marketing platform for the next program. Our engineering, marketing, and sales groups provide ongoing services to our customers throughout the life of product programs. These services include implementing continuous improvement tools related to both the product's cost and technical performance. This service function allows us to market future sales within our customer base.

We market our services primarily in North America, Asia, and Europe through a direct technical sales force resident in those areas. A staff of in-house, Arizona-based engineering personnel directs and aids all sales personnel.

Our sales to customers in North America represented approximately 15.8% of net sales in 2000 and 16.8% of net sales in 2001. Our sales to customers in China represented approximately 38.5% of net sales in 2000 and 40.6% of net sales in 2001. Our sales to customers in other foreign countries represented approximately 45.7% of net sales in 2000 and 42.6% of net sales in 2001.

We have a representative relationship with Mitsui Co., Ltd. of Tokyo, Japan. Under this relationship, Mitsui markets and sells LCoS microdisplay products in Japan.

Customers

Our strategy in our direct view display business involves concentrating our efforts on providing design and production services to leading companies in mobile handsets and other wireless communication, data collection, office automation, medical equipment, and other commercial and consumer marketplaces. As a result, we derive our net sales from services provided to a limited number of customers.

Our largest customer is Motorola. Sales to Motorola, including their subcontractors, accounted for approximately 85.4% of our net sales in 2001 and 86.9% of our net sales in 2000. No customer other than Motorola accounted for more than 10.0% of our net sales in 2000 or 2001. Substantially all of the net sales for Motorola programs in 2001 were for mobile handset applications. In 2001, however, we received no design wins at Motorola for mobile handset applications. Instead, our design wins with Motorola were in other applications, such as telematics, which is cellular applications in automobiles. Motorola has an LCD module allocation process in which it communicates to each vendor the anticipated annual range of purchases. Under that program, it provided an indication that purchases by Motorola from us during 2002 would be substantially less than 2001 levels. See Item 1 "Business — Special Considerations — Motorola accounts for a significant portion of our sales."

Backlog

As of December 31, 2001, we had a backlog of orders of approximately \$18.7 million. The backlog of orders as of December 31, 2000 was approximately \$63.8 million. Our backlog consists of product orders for which confirmed purchase orders have been received and which are scheduled for shipment within 12 months. The lead time for orders was substantially reduced during 2001; in fact, most orders are now given with only a six to eight week lead time. Most orders are subject to rescheduling or cancellation by the customer with limited penalties. Because of the possibility of customer changes in delivery schedules or cancellations and potential delays in product shipments, our backlog as of a particular date may not be indicative of net sales for any succeeding period.

Manufacturing Services, Facilities, and Quality Control

Manufacturing Services

We have organized our manufacturing geographically to optimize the combination of technology and labor factors. This organization enables us to compete solely on the basis of cost, if necessary, with suppliers of similar products and services throughout the world to the extent we determine to do so based on profitability levels. Our advanced manufacturing techniques include surface mount technologies, chip-on-board, chip-on-flex, chip-on-glass, flip-chip, tape automated bonding, and sophisticated testing systems throughout these processes.

We seek to increase our value to our customers by providing responsive, flexible, total manufacturing services. To date, our manufacturing services have been concentrated on the manufacture of LCDs and assembly of display modules that we have designed. We provide extended manufacturing services beyond these core services, however, if the customer requires them. Extended services may include adding additional components, such as keypads, microphones, speakers, light guides, and optics, or the turnkey manufacture of a complete assembly.

Manufacturing Facilities

We currently conduct manufacturing operations in Tempe, Arizona; Manila, the Philippines; and Beijing, China.

Our dedicated LCoS microdisplay production line is at our Arizona facility. The facility consists of 16,000 square feet of Class 100, 1000 and 10,000 clean room areas where wafer scale LCoS processing, core assembly,

packaging, and automated testing is preformed. We are also completing construction of new clean rooms so that we can perform all manufacturing, packaging, and module assembly for LCoS products at our Arizona facility. Facility personnel include a team of experts ranging from research scientists to specialized engineers with backgrounds in electronics, mechanics, chemistry, physics, and manufacturing. We maintain a wide variety of state-of-the-art testing and quality control equipment at the facility.

The Arizona facility previously housed a fully automated LCD production facility. We utilized this facility to manufacture high-volume LCD glass panels and to conduct LCD research and development, to produce prototype and pre-production runs of devices for customer approval, to conduct full production runs of low-volume devices, and to develop advanced manufacturing processes that could be applied in Manila and Beijing during full-scale production.

We made the decision in 2001, however, to move the LCD line, as well as all prototyping activities, to Asia to take advantage of its lower cost manufacturing environment. All prototyping activities are now conducted in Manila and Beijing. We expect that the high-volume LCD line will resume production in Asia later in 2002.

We conduct high-volume LCD module manufacturing in Manila and Beijing. In January 2001, we moved from our old location in Manila into a custom-designed, built-to-suit manufacturing facility in the Carmelray Industrial Park near Manila in the Philippines. The term of this lease for the factory in Manila is 125 months. This new 65,000 square foot manufacturing and design facility incorporates state-of-the-art manufacturing equipment and a class 10,000 cleanroom environment. This new facility is focused on module manufacturing and is staffed entirely with direct labor employed by us. In addition, the new manufacturing facility has been outfitted with specific tooling and equipment unique to our manufacturing needs. The new facility is located in a special Philippines economic zone (PEZA), which will allow us to take advantage of certain tax benefits. In Manila, we also operate certain back-end LCD functions pursuant to a sub-assembly agreement with Technology Electronic Assembly and Management Pacific Corporation, or TEAM. Those services are performed in TEAM's buildings, but during 2002 all functions will be transferred to our own Carmelray facility.

Our Beijing facility is a high-volume display module manufacturing facility similar to our facility in Manila. We own the manufacturing facility in Beijing, which we completed in 1999, and all of the equipment in that facility. In addition, we employ all of the direct and indirect manufacturing employees at the facility, including technicians, supervisors, and engineers.

Quality Control

We recognize the need to maintain a strong reputation for quality as a means of retaining existing customers and securing additional orders from them as well as attracting new customers. We have an extensive quality control program and maintain at each of our facilities quality systems and processes that meet or exceed the demanding standards set by many leading OEMs in our targeted industries. We base our quality control program upon statistical process control, which advocates continual quantitative measurements of crucial parameters and uses those measurements in a closed-loop feedback system to control the manufacturing process. We perform product life testing to help ensure long-term product reliability. We analyze results of product life tests and take actions to refine the manufacturing process or enhance the product design.

Increased global competition has led to increased customer expectations with respect to price, delivery, and quality. Customers often evaluate price in the quotation process and evaluate delivery and quality only after receiving the product. Therefore, many customers preview a company's quality by viewing the quality systems employed. We have received ISO 9001 and QS 9000 certification of our new Manila manufacturing facility and ISO 9001 certification of our manufacturing facility and corporate headquarters in Tempe, Arizona. ISO and QS are quality standards established by international organizations that attempt to ensure that the processes used in development and production remain consistent. This is accomplished through documentation maintenance, training, and management review of the processes used. Although achieving an ISO or QS certification does not assure that we will obtain future business, it is a factor that enables our customers to recognize that our production processes meet these established, global standards of performance.

Components and Raw Materials

Components and raw materials constitute a substantial portion of our product costs. The principal components and raw materials we use in producing our displays consist of LCD glass, silicon wafers (for *LCoS* microdisplays), application specific integrated circuits, or ASICs, circuit boards, molded plastic parts, lead frames, and packaging materials. Our procurement strategy is to secure alternative sources of supplies for the majority of these materials. Many of these materials, however, must be obtained from foreign suppliers, which subjects us to the risks inherent in obtaining materials from foreign sources, including supply interruptions and currency fluctuations. Our suppliers generally are meeting our requirements, and we believe our strategic supplier alliances have further strengthened our relations with offshore suppliers. We experienced material shortages of ASICs in 1999 and 2000 as a result of the increased worldwide demand for cellular handsets and as a result of supplier issues encountered in the fourth quarter of 2000. These shortages prevented us from meeting customer demand for certain of our products. Similar shortages in the future could have a material adverse effect on our business.

Research, Development, and Engineering

We conduct an active and ongoing research, development, and engineering program that focuses on advancing technology, developing improved design and manufacturing processes, and improving the overall quality of the products and services that we provide. Our goal is to provide our customers with new solutions that address their needs. Research and development personnel concentrate on improving the performance of current products and expanding the technology to serve new markets. We also conduct research and development in manufacturing processes, including those associated with efficient, high-volume production and electronic packaging.

We are also focusing our research and development efforts on new display technologies. We expect that these advanced display technologies will enable us to provide our customers with differentiating products or products that provide higher information content. These new technologies include active addressing, sunlight readable LCDs, color LCDs, plastic LCDs, bi-stable LCDs, graphics and color graphics, organic emitting displays, and pixel-related display technologies. These products may be available for use in custom devices or in standard devices. We have undertaken a significant research and development program and made substantial investments with respect to the development of our *LCoS* microdisplays. The majority of our available research and development personnel hours was dedicated to *LCoS* microdisplays in 2001, and we expect that to continue in 2002.

Intellectual Property

We rely on a variety of intellectual property methods, including patents, trade secrets, trademarks, confidentiality agreements, licensing agreements, and other forms of contractual provisions, to protect and advance our intellectual property. Although our existing LCD display business has not historically depended on intellectual property protection, we are manufacturing more advanced display products for which we are actively seeking intellectual property protection. We have also applied for numerous other process, product, and design patents, all related to display technologies. There can be no assurance that any of these patents will be issued to us.

We have also taken several steps to both protect and advance our *LCoS* microdisplay technology.

- We have filed numerous patents relating to our *LCoS* microdisplay technology. These patents cover the areas of product design and manufacturing process technology. We have a strong emphasis in this area and expect to continue to file additional disclosures.
- In July 1999, we purchased the assets, including all production and test equipment, specialized laboratory equipment, and supporting design documentation and software, of the former Light Valve business unit of National Semiconductor. We also hired several key scientists of that business unit and acquired an exclusive, paid-up, royalty free license on all of the patents and intellectual property related to that business unit. This license covers all intellectual property relating to the processing, packaging, and testing of light valves and the integrated circuits necessary to manufacture and sell both light valves and light engines.
- In August 1999, we licensed the microdisplay technology of S-Vision Corporation, a former microdisplay competitor that had recently ceased operations. Under this agreement, we acquired an irrevocable, royalty free, fully paid-up, worldwide license to the intellectual property associated with

S-Vision's digital backplane and optical systems, which provides us rights to manufacture certain microdisplay products and patented optical engines. In addition, S-Vision assigned to us a patent relating to the design and manufacture of microdisplay products.

- In January 2002, we purchased the intellectual property of Zight Corporation, a private company that focused on microdisplays for personal display system applications. In addition, we purchased certain key assets of Zight's at a creditor's auction and hired six key technical persons formerly employed by Zight.

Competition

We believe that Philips, Samsung, Seiko-Epson, Hosiden, Optrex, Seiko Instruments, Wintek, and Sharp constitute the principal competitors for our direct view display products. Most of these competitors are large companies that have greater financial, technical, marketing, manufacturing, vertical integration, and personnel resources than we do. Our sales, profitability, and success depend substantially upon our ability to compete with other providers of display modules. We cannot provide assurance that we will continue to be able to compete successfully with these organizations. We currently compete principally on the basis of the technical innovation, engineering service, and performance of our display modules, including their ease of use and reliability, as well as on their cost, timely design, and manufacturing and delivery schedules. Our competitive position could be adversely affected if one or more of our customers determines to design and manufacture their display modules internally or secures them from other parties.

We believe that Texas Instruments, JVC, Hitachi, Aurora Systems, Epson, and Sony constitute the principal competitors for our microdisplay products. Texas Instruments has developed a product, referred to as a DMD microdisplay, that competes with our *LCoS* technology. JVC, Hitachi, and Aurora are producing a similar liquid crystal on silicon display based on their own technology. Epson and Sony manufacture transmissive polysilicon, which is a type of microdisplay that can be used in some of the same applications as *LCoS* microdisplays. Numerous other established and start-up companies are also pursuing similar and related technologies that may compete with our *LCoS* technology.

Environmental Regulations

Our operations create a small amount of hazardous waste, including various epoxies, gases, inks, solvents, and other wastes. The amount of hazardous waste we produce may increase in the future depending on changes in our operations. The general issue of the disposal of hazardous waste has received increasing focus from federal, state, local, and international governments and agencies and has been subject to increasing regulation.

In 1991, we received a notice of potential liability at the Barkhamsted-New Hartford Landfill Site (the "Landfill") in Barkhamsted, Connecticut from the United States Environmental Protection Agency ("EPA"). Fifty-seven other entities received similar letters. In January 1992, we received a 104(e) questionnaire from the EPA which was completed and submitted during 1992. We received verbal notification that we had no further liability in the matter. According to the EPA, groundwater contamination at the site, which includes volatile and semi-volatile organic compounds and low concentrations of metals, constitutes a low-level threat. As a result of previous actions at the site, groundwater is the only medium requiring additional cleanup. All source material and principal threats have been addressed through the landfill capping and related activity completed in 1999. On February 28, 2002, we received notification from the EPA that the EPA believes we are an involved party and indicated that the EPA was seeking to negotiate an agreement with the involved parties to fund the EPA's chosen remedy of monitored natural attenuation of the groundwater. The EPA indicated that further notification would be made in the next 60 days, which notification will include the names of any other involved parties. We are evaluating our potential liability at the site. The Landfill is a semi-active waste disposal area consisting of 97.84 acres located in Barkhamsted and New Hartford, Connecticut. The Landfill is owned and operated by the Administrative Board of Regional Refuse Disposal and began operating as a landfill in 1974. Industrial wastes were received by the Landfill until 1993, and the Landfill was closed in 1995. The EPA has conducted a Remedial Investigation/Feasibility Study and issued a Proposed Plan to clean up the site.

Employees

As of December 31, 2001, we employed a total of 1,500 persons, of whom seven were employed through third-party contracts. Of our direct employees, 233 were employees at our principal U.S. facility in Arizona and U.S. sales offices; 739 were employees at our manufacturing facility in Manila; 516 were employees at our manufacturing facility in Beijing; and five were employees at our Three-Five Systems Limited subsidiary in Swindon, England. We consider our relationship with our employees to be good, and none of our employees currently are represented by a union in collective bargaining with us.

In 2001, TEAM provided some of the personnel engaged in the back-end assembly of our LCD panels in Manila under a sub-assembly agreement between us and TEAM. As of December 31, 2001, 361 persons performed direct labor operations at the Manila facility through this sub-assembly agreement with TEAM.

Executive Officers

The following table sets forth certain information regarding our executive officers:

<u>Name</u>	<u>Age</u>	<u>Position Held</u>
Jack L. Saltich	58	President, Chief Executive Officer, and Director
Jeffrey D. Buchanan	46	Executive Vice President, Chief Financial Officer, Secretary, Treasurer, and Director
Carl E. Derrington	51	Vice President, Chief Manufacturing Officer
Robert L. Melcher	62	Chief Technology Officer
Robert T. Berube	63	Principal Accounting Officer and Corporate Controller
Robert W. Harrison	40	Vice President, Direct View Display Business Unit Manager
Tom Miller	52	General Manager, Three-D OLED

Jack L. Saltich has served as a director and the President and Chief Executive Officer of our company since July 1999. Mr. Saltich served as Vice President of Advanced Micro Devices from May 1993 until July 1999; as Executive Vice President of Applied Micro Circuits Corp. from January 1991 until March 1993; and as Vice President of VLSI from July 1988 until January 1991. Mr. Saltich held a variety of executive positions for Motorola from July 1971 until June 1988. These positions included serving as an Engineering Manager from May 1974 until January 1980, an Operation Manager from January 1980 until May 1982, a Vice President and Director of the Bipolar Technology Center from May 1982 until June 1986, and a Vice President and Director of the Advanced Product Research and Development Laboratory from June 1986 until June 1988.

Jeffrey D. Buchanan has served as a director and Executive Vice President of our company since June 1998; as Chief Financial Officer and Treasurer since June 1996; and as Secretary since May 1996. Mr. Buchanan served as our Vice President – Finance, Administration, and Legal from June 1996 until July 1998 and as our Vice President – Legal and Administration from May 1996 to June 1996. Mr. Buchanan served from June 1986 until May 1996 as a business lawyer with O'Connor, Cavanagh, Anderson, Killingsworth & Beshears. Mr. Buchanan was associated with the international law firm of Davis Wright Tremaine from 1984 to 1986, and he was a senior staff person at Deloitte & Touche from 1982 to 1984.

Carl E. Derrington has been our Chief Manufacturing Officer since May 1999. Dr. Derrington joined our company in 1986 as a Director of Research and Development. Since that time, Dr. Derrington has served as a Plant Manager from January 1986 until September 1987, a Director of Engineering from September 1987 until August 1989, a Director of Manufacturing from August 1989 until April 1996, and a Director of Manufacturing Engineering from April 1996 until April 1999.

Robert L. Melcher has been our Chief Technology Officer since October 1999. Prior to joining our company, Dr. Melcher was employed at IBM in a variety of management positions since 1970. He served as the Program Leader for Projection Displays from 1993 to 1999 and immediately prior to that he was Director of the Physical Sciences Department from 1990 to 1993.

Robert T. Berube has been our Principal Accounting Officer since July 1998 and has served as our Corporate Controller since July 1990. Mr. Berube served as Chief Financial Officer of Electronic Research Associate, Inc., a manufacturing company, from July 1977 until April 1990.

Robert Harrison has been Vice President of the Direct View Display Group since January of 2001. From July 1999 to December 2000 he was Vice President of Sales and Marketing for the Direct View Display Group. From September 1998 to July 1999 Mr. Harrison was a principal at Harcom International, a display consultant and market research firm. From April 1996 to August 1998 Mr. Harrison was General Manager of the LCD Division of Hyundai Electronics America. He served as Senior Regional Sales Manager for Three-Five Systems from January 1995 to April 1996. Previously, he held positions with Optrex, an LCD manufacturing company, from August 1988 to 1995, including Regional Sales Manager from August 1988 to December 1990 and National Accounts Manager from January 1991 to January 1995.

Tom Miller has been General Manager of Three-D OLED since July 2001. Previously, he was VP Sales and Marketing for Silicon Motion, Inc., from December 2000 until July 2001. Mr. Miller was a principal partner at Sapiential Prime, a management consulting company to high technology start-ups from April 1998 until December 2000. He was founder and CEO of Quantum 3D, a provider of high-end 3D graphics boards from April 1996 until April 1998. From May 1973 to April 1996, Mr. Miller held a variety of management positions, including Vice President of Marketing for Fujitsu Microelectronics, interim Chairman and CEO of SPARC International, an industry consortium, Chairman and CEO of VIA Technologies, Vice President of Sales and Marketing for Integrated CMOS Systems, and executive positions at Fairchild Semiconductor, NCR Microelectronics and Texas Instruments.

SPECIAL CONSIDERATIONS

You should carefully consider the following factors, in addition to those discussed elsewhere in this report, in evaluating our company and our business.

Motorola accounts for a significant portion of our sales.

Our revenue depends to a significant extent on maintaining Motorola's business as well as Motorola's success in the mobile handset business, particularly in the various major mobile handset programs in which we participate. Any material delay, cancellation, or reduction of orders from Motorola could have a material adverse effect on our business.

Motorola, including its subcontractors, has been our largest customer during each of the last six years. Sales of Motorola products accounted for approximately 85.4% of our net sales in 2001, 86.9% in 2000, 86.1% in 1999, 63.6% in 1998, 34.6% in 1997, and 65.1% in 1996. Substantially all of our sales of Motorola products were for mobile handset applications. During 2001, the three largest of these product programs accounted for a total of 75.8% of our net sales, with the largest program accounting for 57.2% of our net sales.

A significant decline in sales to Motorola is expected to occur in 2002 primarily as a result of receiving no new design wins in 2001 in its handset business. Further unexpected reductions could also occur at any time. For example, an unexpected reduction in Motorola mobile handset programs reduced our net sales to Motorola from \$73.7 million in 1995 to \$39.5 million in 1996 and \$29.2 million in 1997. Since Motorola has no long-term contractual commitments to purchase any of our products, we could experience similar declines in our net sales at any time. If we do not receive any additional design wins in 2002 in Motorola's handset business, additional significant declines in sales to Motorola could occur in 2003.

Our revenue may decline significantly during 2002

The year 2001 was characterized by a worldwide lack of growth in the handset market and excess LCD capacity. As a result, some OEMs expected LCD modules used in low-end handsets to be sold below industry costs. We have made the strategic decision, however, not to sell our products below standard industry costs. Instead, we are focusing on lower-volume, higher-priced products that utilize our advanced technologies and engineering services. As a result of our strategic decision, however, our volume of unit shipments and, consequently, our revenue, may decline significantly.

Our emerging microdisplay business may not be successful.

A key element of our current business plan involves the commercialization of our microdisplay technology. The success of this effort depends on numerous factors. As a result, we could be unable to expand our business as we currently anticipate and may make substantial investments in product development, manufacturing, and marketing efforts that may not result in microdisplay sales.

Manufacturing an *LCoS* microdisplay involves a significantly different procedure than manufacturing a typical liquid crystal display. Although we added additional equipment to our Arizona manufacturing facility in the last two years for manufacturing *LCoS* microdisplays, the manufacture of microdisplays will require us to overcome numerous challenges, including the following:

- the use of new materials, including silicon;
- the modification of equipment and processes to accommodate the round silicon wafers;
- the implementation of new manufacturing techniques;
- the incorporation of new handling procedures;
- the maintenance of cleaner manufacturing environments; and
- the ability to master tighter tolerances in the manufacturing process.

We experienced significant issues in commencing volume production of *LCoS* microdisplays in 2001, and those issues could continue through 2002. These issues could result in the delay of the full implementation of high-volume *LCoS* microdisplay production. In addition, we experienced lower than expected manufacturing yields in *LCoS* microdisplays. Continued lower than expected manufacturing yields could significantly and adversely affect us because of the relatively high cost of the silicon backplanes used in *LCoS* microdisplays.

Various target markets for our microdisplays, including projectors, monitors, digital and high-definition televisions, and portable microdisplays, are uncertain, may be slow to develop, or could utilize competing technologies, especially polysilicon and DMDs. Many manufacturers have well-established positions in these markets. As a result, we must provide customers with lower cost, comparable performance microdisplays for their products. Digital and high-definition television has only recently become available to consumers, and widespread market acceptance is uncertain. Penetrating this market will require us to offer an improved value proposition to existing technology. In addition, the commercial success of the portable microdisplay market is uncertain. Gaining acceptance in this market may prove difficult because of the radically different approach of microdisplays to the presentation of information. The failure of any of these target markets to develop as we expect, or our failure to penetrate these markets, will impede our anticipated sales growth. Even if our technology successfully meets our price and performance goals, our customers may not achieve commercial success in selling their products that incorporate our microdisplay technology.

We face intense competition.

We serve intensely competitive industries that are characterized by price erosion, rapid technological change, and competition from major domestic and international companies. In 2001, some OEM customers began expecting to purchase LCD modules at prices below industry costs, and many of our competitors agreed to those requests. Continued competition of this kind could result in additional pricing pressures, lower sales, reduced margins, and lower market share.

Many of our competitors have greater market recognition, larger customer bases, and substantially greater financial, technical, marketing, distribution, and other resources than we possess. As a result, they may be able to introduce new products and respond to customer requirements more quickly than we can.

Our competitive position could suffer if one or more of our customers decide to design and manufacture their own display modules, to use standard devices, to contract with our competitors, or to use alternative technologies. In addition, our customers typically develop a second source, even for displays we design for them. These second source suppliers may win an increasing share of a program, particularly as it grows and matures, by competing primarily on price rather than on design capability.

Our ability to compete successfully depends on a number of factors, both within and outside our control. These factors include the following:

- our success in designing and manufacturing new product solutions, including those implementing new technologies;
- our ability to address the needs of our customers;
- the pricing, quality, performance, reliability, features, ease of use, and diversity of our product solutions;
- foreign currency devaluations, especially in Asian currencies, such as the Japanese yen, the Korean won and the Taiwanese dollar, which may cause a foreign competitor's products to be priced significantly lower than our product solutions;
- the quality of our customer services;
- our efficiency of production;
- the rate at which customers incorporate our product solutions into their own products; and
- product or technology introductions by our competitors.

We are subject to lengthy development periods and product acceptance cycles.

We sell our display modules to OEMs, which then incorporate them into the products they sell. OEMs make the determination during their product development programs whether to incorporate our display modules or pursue other alternatives. This requires us to make significant investments of time and capital in the custom design of display modules well before our customers introduce their products incorporating these displays and before we can be sure that we will generate any significant sales to our customers or even recover our investment. During a customer's entire product development process, we face the risk that our display will fail to meet our customer's technical, performance, or cost requirements or will be replaced by a competing product or alternative technological solution. Even if we complete our design process in a manner satisfactory to our customer, the customer may delay or terminate its product development efforts. The occurrence of any of these events would adversely affect our operating results. The lengthy development period also means that it is difficult to immediately replace an unexpected loss of existing business.

We do not have long-term purchase commitments from our customers.

Our customers, including Motorola, generally do not provide us with firm, long-term volume purchase commitments. In addition, the worldwide adverse economic slowdown in 2001 led to radically shortened lead times on purchase orders. Although we sometimes enter into manufacturing contracts with our customers, these contracts clarify order lead times, inventory risk allocation, and similar matters rather than provide firm, long-term volume purchase commitments. As a result, customers can generally cancel purchase commitments or reduce or delay orders at any time. The cancellation, delay, or reduction of customer commitments could result in our holding excess and obsolete inventory or having unabsorbed manufacturing overhead. The large percentage of our sales to customers in the electronics industry, which is subject to severe competitive pressures, rapid technological change, and product obsolescence, increases our inventory and overhead risks.

Our operating results have been materially and adversely affected in the past as a result of the failure to obtain anticipated orders and deferrals or cancellations of purchase commitments because of changes in customer

requirements. For example, we have made announcements in the past that sales would not meet our expectations because of delays in customer programs. This problem was exacerbated in 2001 because of the limited visibility and shortened lead-time of purchase orders from our customers.

We depend on the market acceptance of the products of our customers.

We do not sell any products to end users. Instead, we design and manufacture various product solutions that our customers incorporate into their products. As a result, our success depends almost entirely upon the widespread market acceptance of our customers' products. Any significant slowdown in the demand for our customers' products would adversely affect our business.

Because our success depends on the widespread market acceptance of our customers' products, we must identify industries that have significant growth potential and establish relationships with OEMs in those industries. Our failure to identify potential growth opportunities or establish relationships with OEMs in those industries would adversely affect our business.

Our dependence on the success of the products of our customers exposes us to a variety of risks, including the following:

- our ability to provide significant design and manufacturing services for customers on a timely and cost-effective basis;
- our success in maintaining customer satisfaction with our design and manufacturing services;
- our ability to match our design and manufacturing capacity with customer demand and to maintain satisfactory delivery schedules;
- customer order patterns, changes in order mix, and the level and timing of orders placed by customers that we can complete in a quarter; and
- the cyclical nature of the industries and markets we serve.

Our failure to address these risks may cause our sales to decline.

Shortages of components and materials may delay or reduce our sales and increase our costs.

Our inability to obtain sufficient quantities of components and other materials necessary to produce our displays could result in reduced or delayed sales or lost orders. Any delay in or loss of sales could adversely impact our operating results. We obtain many of the materials we use in the manufacture of our displays from a limited number of foreign suppliers, particularly suppliers located in Asia, and we do not have long-term supply contracts with any of them. As a result, we are subject to economic instability and currency fluctuations in these Asian countries as well as to increased costs, supply interruptions, and difficulties in obtaining materials. Our customers also may encounter difficulties or increased costs in obtaining from others the materials necessary to produce their products into which our product solutions are incorporated.

Materials and components for some of our major programs from time to time have been subject to allocation because of shortages of these materials and components. During 1998, we occasionally delayed sales of our LCD modules as a result of the unavailability of LCD polarizers and IC drivers, or ASICs. During 1999, we experienced difficulties obtaining our requirements for ASICs as a result of a worldwide shortage. We also experienced a material supply interruption in ASICs for a key program in the fourth quarter of 2000. These shortages resulted in lost sales opportunities. Similar shortages in the future could have a material adverse effect on our business.

We must maintain satisfactory manufacturing yields and capacity.

Our inability to maintain high levels of productivity or satisfactory delivery schedules at our manufacturing facilities in Manila, Beijing, or Arizona would adversely affect our operating results. The design and manufacture of LCDs and display modules are highly complex processes that are sensitive to a wide variety of factors, including the level of contaminants in the manufacturing environment, impurities in the materials used, and the performance

of personnel and equipment. As is typical in the industry, at times we have experienced lower than anticipated manufacturing yields and lengthening of delivery schedules. We may encounter lower manufacturing yields and longer delivery schedules as we ramp our high-volume LCD line in Asia and as we manufacture LCoS microdisplays in higher volumes. In addition, the complexity of manufacturing processes will increase along with increases in the sophistication of display modules.

We are in the process of moving our Arizona LCD line to Asia. We will face the risks inherent in constructing, equipping, and commencing operations in that new LCD facility. These risks include the following:

- the ability to identify and acquire or lease suitable property;
- construction delays and cost overruns;
- the ability to procure and install necessary additional equipment;
- the ability to hire, train, and manage manufacturing personnel; and
- production delays, unfavorable manufacturing yields, and lengthening delivery schedules.

Any problems with our other manufacturing operations could result in the lengthening of our delivery schedules, reductions in the quality or performance of our design and manufacturing services, and reduced customer satisfaction.

Our business depends on new products and technologies.

We operate in rapidly changing industries. Technological advances, the introduction of new products, and new design and manufacturing techniques could adversely affect our business unless we are able to adapt to the changing conditions. As a result, we will be required to expend substantial funds for and commit significant resources to:

- continue research and development activities on existing and potential product solutions;
- engage additional engineering and other technical personnel;
- purchase advanced design, production, and test equipment; and
- expand our manufacturing capacity.

Our future operating results will depend to a significant extent on our ability to continue to provide new product solutions that compare favorably on the basis of time to introduction, cost, and performance with the design and manufacturing capabilities of OEMs and competitive third-party suppliers. Our success in attracting new customers and developing new business depends on various factors, including the following:

- utilization of advances in technology;
- innovative development of new solutions for customer products;
- efficient and cost-effective services; and
- timely completion of the design and manufacture of new product solutions.

Our efforts to develop new technologies may not result in commercial success.

Our research and development efforts with respect to new technologies may not result in customer or widespread market acceptance. Some or all of those technologies may not successfully make the transition from the research and development lab to cost-effective production as a result of technology problems, competitive cost issues, yield problems, and other factors. Even when we successfully complete a research and development effort with respect to a particular technology, our customers may determine not to introduce or may terminate products utilizing the technology for a variety of reasons, including the following:

- difficulties with other suppliers of components for the products;
- superior technologies developed by our competitors;

- price considerations;
- lack of anticipated or actual market demand for the products; and
- unfavorable comparisons with products introduced by others.

The nature of our business requires us to make capital expenditures and investments for new technologies. For example, our capital acquisition value of the assets, including tooling and licenses, for *LCoS* microdisplays, currently our largest research and development effort, was \$14.8 million through December 31, 2001. To facilitate the development of our *LCoS* microdisplay products, we also made an equity investment of \$3.8 million in Inviso, Inc., which we had to write off in 2001 as a result of the closing of those operations. In addition, we purchased assets and technology of the former Light Valve business unit of National Semiconductor Corporation for approximately \$3.6 million during 1999 and the technology and certain assets of Zight Corporation for approximately \$2.6 million in early 2002. We also invested \$1.3 million in a microdisplay component related start-up company, Silicon Bandwidth, Inc., during 2001. We may be required to make similar investments and acquisitions in the future to maintain or enhance our ability to offer technological solutions.

Significant expenditures relating to one or more new technologies, especially *LCoS* microdisplays, that ultimately prove to be unsuccessful for any reason could have a material adverse effect on us. In addition, any investments or acquisitions made to enhance our technologies may prove to be unsuccessful.

We face risks associated with international operations.

Our manufacturing operations in Manila, Beijing, and Arizona and our sales and distribution operations in Europe and Asia create a number of logistical and communications challenges. Our international operations also expose us to various economic, political, and other risks, including the following:

- management of a multi-national organization;
- compliance with local laws and regulatory requirements as well as changes in those laws and requirements;
- employment and severance issues;
- overlap of tax issues;
- tariffs and duties;
- possible employee turnover or labor unrest;
- lack of developed infrastructure;
- the burdens and costs of compliance with a variety of foreign laws; and
- political or economic instability in certain parts of the world.

Changes in policies by the United States or foreign governments resulting in, among other things, increased duties, higher taxation, currency conversion limitations, restrictions on the transfer or repatriation of funds, limitations on imports or exports, or the expropriation of private enterprises also could have a material adverse effect on us. Any actions by our host countries to reverse policies that encourage foreign investment or foreign trade also could adversely affect our operating results. In addition, U.S. trade policies, such as "most favored nation" status and trade preferences for certain Asian nations, could affect the attractiveness of our services to our U.S. customers.

We depend on our operations in Arizona.

Our Arizona facility and its high-volume *LCoS* microdisplay manufacturing line are critical to our success. We intend, at least initially, to produce all of our *LCoS* microdisplays on this dedicated line. This facility also houses our principal research, development, engineering, design, and managerial operations. Any event that causes a disruption of the operation of this facility for even a relatively short period of time would adversely affect our ability to provide both technical and manufacturing support for our customers, especially our microdisplay customers.

We depend on our manufacturing operations in the Philippines.

Any disruption or termination of our manufacturing operations in Manila or air transportation with the Philippines, even for a relatively short period of time, would adversely affect our operations. The Philippines have been subject to volcanic eruptions, typhoons, and substantial civil disturbances, including attempted military coups against the government, since we commenced operations there in 1986. Capital investments in the Philippines amounted to approximately \$18.0 million through December 31, 2001. We believe that our manufacturing operations in Manila constitute one of our most important resources and that it would be difficult to replace the low-cost, high-performance facility or the highly trained production staff in the event of the disruption or termination of our manufacturing operations in Manila.

A small portion of our operations in Manila also depends on the business and financial condition of the third-party subcontractor that owns a manufacturing facility that is located on land the subcontractor leases from the Philippine government. The subcontractor utilizes equipment, processes, and documentation that we own and supervisory personnel that we employ. The subcontractor provides us with direct production personnel. The subcontractor also utilizes additional space in the facility to produce products for other entities unrelated to us. Any disruption of our relationship with that subcontractor could adversely affect our ability to provide manufacturing support for our customers.

We depend on our manufacturing operations in China.

In 1999, we completed the construction of a permanent, high-volume LCD module manufacturing facility in Beijing, China, which is similar to our Manila facility. Capital investments in China amounted to approximately \$12.7 million through December 31, 2001.

Our operations and assets are subject to significant political, economic, legal, and other uncertainties in China. The Chinese government recently has been pursuing economic reform policies, including the encouragement of foreign trade and investment and greater economic decentralization. The Chinese government, however, may not continue to pursue these policies, may not successfully pursue these policies, or may significantly alter these policies from time to time. China currently does not have a comprehensive and highly developed system of laws, particularly with respect to foreign investment activities and foreign trade. Enforcement of existing and future laws and contracts is uncertain, and implementation and interpretation of laws may be inconsistent. As the Chinese legal system develops, the passage of new laws, changes in existing laws, and the preemption of local regulations by national laws may adversely affect us. We also could be adversely affected by a number of other factors, including the following:

- the imposition of austerity measures intended to reduce inflation;
- inadequate development or maintenance of infrastructure, including the unavailability of adequate power and water supplies, transportation, raw materials, and parts; and
- a deterioration of the general political, economic, or social environment in China.

Although China recently joined the World Trade Organization, we cannot be certain whether or to what extent trade relations with China will continue to improve. Any developments that adversely affect trade relations between the United States and China in the future could adversely affect us by increasing the cost to U.S. customers of products manufactured by us in China.

We face risks associated with international trade and currency exchange.

Political and economic conditions abroad may adversely affect the foreign manufacture and sale of our displays. Protectionist trade legislation in either the United States or foreign countries, such as a change in the current tariff structures, export or import compliance laws, or other trade policies, could adversely affect our ability to manufacture or sell displays in foreign markets and to purchase materials or equipment from foreign suppliers.

While we transact business predominantly in U.S. dollars and bill and collect most of our sales in U.S. dollars, we collect a portion of our revenue in non-U.S. currencies, such as the Chinese renminbi. In the future, customers increasingly may make payments in non-U.S. currencies, such as the Euro. In addition, we account for a

portion of our costs, such as payroll, rent, and indirect operating costs, in non-U.S. currencies, including Philippine pesos, British pounds sterling, and Chinese renminbi.

Fluctuations in foreign currency exchange rates could affect our cost of goods and operating margins and could result in exchange losses. In addition, currency devaluation can result in a loss to us if we hold deposits of that currency. The Philippine peso suffered a major devaluation in late 1997, and the Chinese renminbi has experienced significant devaluation against most major currencies in recent years. Hedging foreign currencies can be difficult, especially if the currency is not freely traded. We cannot predict the impact of future exchange rate fluctuations on our operating results.

The risks described above are particularly important since sales outside North America represented 83.2% of our net sales in 2001 and 84.2% of our net sales in 2000. Sales in foreign markets, primarily Europe and China, to OEMs based in the United States accounted for almost all of our international sales in both of these periods.

Variability of customer requirements may adversely affect our operating results.

Custom manufacturers for OEMs must provide increasingly rapid product turnaround and respond to ever-shorter lead times. A variety of conditions, both specific to individual customers and generally affecting the demand for their products, may cause customers to cancel, reduce, or delay orders. Cancellations, reductions, or delays by a significant customer or by a group of customers could adversely affect our business. On occasion, customers require rapid increases in production, which can strain our resources and reduce our margins. Although we have increased our manufacturing capacity, we may lack sufficient capacity at any given time to meet our customers' demands if their demands exceed anticipated levels.

Our operating results have significant fluctuations.

In addition to the variability resulting from the short-term nature of our customers' commitments, other factors contribute to significant periodic and seasonal quarterly fluctuations in our results of operations. These factors include the following:

- the timing of orders;
- the volume of orders relative to our capacity;
- product introductions and market acceptance of new products or new generations of products;
- evolution in the life cycles of customers' products;
- timing of expenditures in anticipation of future orders;
- effectiveness in managing manufacturing processes;
- changes in cost and availability of labor and components;
- product mix;
- pricing and availability of competitive products and services; and
- changes or anticipated changes in economic conditions.

Accordingly, you should not rely on the results of any past periods as an indication of our future performance. It is likely that in some future period, our operating results may be below expectations of public market analysts or investors. If this occurs, our stock price may decline.

We must effectively manage our growth.

The failure to manage our growth effectively could adversely affect our operations. We have increased the number of our manufacturing and design programs and plan to expand further the number and diversity of our programs in the future. Our ability to manage our planned growth effectively will require us to

- enhance our operational, financial, and management systems;

- expand our facilities and equipment; and
- successfully hire, train, and motivate additional employees, including the technical personnel necessary to operate our production facilities in Tempe, Manila, and Beijing.

The expansion and diversification of our product and customer base may result in increases in our overhead and selling expenses. We also may be required to increase staffing and other expenses as well as our expenditures on capital equipment and leasehold improvements in order to meet the anticipated demand of our customers. For example, we plan further expansion of our *LCoS* manufacturing capacity. Customers, however, generally do not commit to firm production schedules for more than a short time in advance. Any increase in expenditures in anticipation of future orders that do not materialize would adversely affect our profitability. Customers also may require rapid increases in design and production services that place an excessive short-term burden on our resources.

We depend on key personnel.

Our development and operations depend substantially on the efforts and abilities of our senior management and technical personnel. The competition for qualified management and technical personnel is intense. The loss of services of one or more of our key employees or the inability to add key personnel, including those required for our *LCoS* manufacturing facility, could have a material adverse effect on us. Although we maintain non-competition and nondisclosure covenants with certain key personnel, we do not have any fixed-term agreements with, or key person life insurance covering, any officer or employee.

We must protect our intellectual property, and others could infringe on or misappropriate our rights.

We believe that our continued success depends in part on protecting our proprietary technology. Third parties could claim that we are infringing their patents or other intellectual property rights. In the event that a third party alleges that we are infringing its rights, we may not be able to obtain licenses on commercially reasonable terms from the third party, if at all, or the third party may commence litigation against us. The failure to obtain necessary licenses or other rights or the institution of litigation arising out of such claims could materially and adversely affect us.

We rely on a combination of patent, trade secret, and trademark laws, confidentiality procedures, and contractual provisions to protect our intellectual property. We seek to protect certain of our technology under trade secret laws, which afford only limited protection. We face risks associated with our intellectual property, including the following:

- pending patent applications may not be issued;
- intellectual property laws may not protect our intellectual property rights;
- third parties may challenge, invalidate, or circumvent any patent issued to us;
- rights granted under patents issued to us may not provide competitive advantages to us;
- unauthorized parties may attempt to obtain and use information that we regard as proprietary despite our efforts to protect our proprietary rights;
- others may independently develop similar technology or design around any patents issued to us; and
- effective protection of intellectual property rights may be limited or unavailable in some foreign countries, such as China, in which we operate.

We may not be able to obtain effective patent, trademark, service mark, copyright, and trade secret protection in every country in which we sell our products. We may find it necessary to take legal action in the future to enforce or protect our intellectual property rights or to defend against claims of infringement. Litigation can be very expensive and can distract our management's time and attention, which could adversely affect our business. In addition, we may not be able to obtain a favorable outcome in any intellectual property litigation.

The market price of our common stock may be volatile.

The market price of our common stock has been extremely volatile. Our stock price increased dramatically during the three-year period ended December 31, 1994, but declined significantly during 1995 and 1996. The stock price increased again during 1997, but declined significantly in 1998. Our stock price again increased significantly during 1999 and in early 2000, but suffered a major decline in the second half of 2000. The stock, again, declined in the first half of 2001. The trading price of our common stock in the future could continue to be subject to wide fluctuations in response to various factors, including the following:

- variations in our quarterly operating results;
- actual or anticipated announcements of technical innovations or new product developments by us or our competitors;
- changes in analysts' estimates of our financial performance;
- general conditions in the electronics industry; and
- worldwide economic and financial conditions.

In addition, the stock market has experienced extreme price and volume fluctuations that have particularly affected the market prices for many high-technology companies and that often have been unrelated to the operating performance of these companies. These broad market fluctuations and other factors may adversely affect the market price of our common stock.

The electronics industry is cyclical.

The electronics industry has experienced significant economic downturns at various times, characterized by diminished product demand, accelerated erosion of average selling prices, and production over-capacity. In addition, the electronics industry is cyclical in nature. We have sought to reduce our exposure to industry downturns and cyclicalities by providing design and production services for leading companies in rapidly expanding segments of the electronics industry. From time to time, however, as in 2001, we experience substantial period-to-period fluctuations in operating results, at least in part because of general industry conditions or events occurring in the general economy.

We must finance the growth of our business and the development of new products.

To remain competitive, we must continue to make significant investments in research and development, equipment, and facilities. As a result of the increase in fixed costs and operating expenses related to these capital expenditures, our failure to increase sufficiently our net sales to offset these increased costs would adversely affect our operating results.

From time to time, we may seek additional equity or debt financing to provide for the capital expenditures required to maintain or expand our design and production facilities and equipment. We cannot predict the timing or amount of any such capital requirements at this time. If such financing is not available on satisfactory terms, we may be unable to expand our business or to develop new business at the rate desired and our operating results may suffer. Debt financing increases expenses and must be repaid regardless of operating results. Equity financing could result in additional dilution to existing stockholders.

Potential strategic alliances may not achieve their objectives.

We have entered into various strategic alliances, such as our alliances with DuPont Displays for OLEDs and Synaptics, Inc., and we plan on entering into other similar types of alliances. Among other matters, we will explore strategic alliances designed to enhance or complement our technology or to work in conjunction with our technology; to increase our manufacturing capacity; to provide necessary know-how, components, or supplies; and to develop, introduce, and distribute products utilizing our technology. Any strategic alliances may not achieve their strategic objectives, and parties to our strategic alliances may not perform as contemplated.

Any acquisitions that we undertake could be difficult to integrate, disrupt our business, dilute stockholder value, and harm our operating results.

We expect to review opportunities to buy other businesses or technologies that would complement our current products, expand the breadth of our markets, enhance our technical capabilities, or otherwise offer growth opportunities. While we have no current agreements or negotiations underway, we may buy businesses, products, or technologies in the future. If we make any future acquisitions, we could issue stock that would dilute existing stockholders' percentage ownership, incur substantial debt, or assume contingent liabilities. Our experience in acquiring other businesses and technologies is limited. Potential acquisitions also involve numerous risks, including the following:

- problems assimilating the purchased operations, technologies, or products;
- unanticipated costs associated with the acquisition;
- diversion of management's attention from our core businesses;
- adverse effects on existing business relationships with suppliers and customers;
- risks associated with entering markets in which we have no or limited prior experience; and
- potential loss of key employees of purchased organizations.

We cannot assure you that we would be successful in overcoming problems encountered in connection with such acquisitions, and our inability to do so could adversely affect our business.

We are subject to environmental regulations.

Our operations result in the creation of small amounts of hazardous waste, including various epoxies, gases, inks, solvents, and other wastes. Any failure by us to control the use, or adequately restrict the discharge, of hazardous substances could subject us to future liabilities. We are subject to federal, state, and local governmental regulations related to the use, storage, discharge, and disposal of toxic, volatile, or otherwise hazardous chemicals used in our design and manufacturing processes. The amount of hazardous waste produced by us may increase in the future depending on changes in our operations. Our failure to comply with present or future environmental regulations could result in the imposition of fines, suspension of production, or a cessation of operations. Compliance with these regulations could require us to acquire costly equipment or to incur other significant expenses.

In 1991, we received a notice of potential liability at the Barkhamsted-New Hartford Landfill Site (the "Landfill") in Barkhamsted, Connecticut from the United States Environmental Protection Agency ("EPA"). Fifty-seven other entities received similar letters. In January 1992, we received a 104(e) questionnaire from the EPA which was completed and submitted during 1992. We received verbal notification that we had no further liability in the matter. According to the EPA, groundwater contamination at the site, which includes volatile and semi-volatile organic compounds and low concentrations of metals, constitutes a low-level threat. As a result of previous actions at the site, groundwater is the only medium requiring additional cleanup. All source material and principal threats have been addressed through the landfill capping and related activity completed in 1999. On February 28, 2002, we received notification from the EPA that the EPA believes we are an involved party and indicated that the EPA was seeking to negotiate an agreement with the involved parties to fund the EPA's chosen remedy of monitored natural attenuation of the groundwater. The EPA indicated that further notification would be made in the next 60 days, which notification will include the names of any other involved parties. We are evaluating our potential liability at the site. The Landfill is a semi-active waste disposal area consisting of 97.84 acres located in Barkhamsted and New Hartford, Connecticut. The Landfill is owned and operated by the Administrative Board of Regional Refuse Disposal and began operating as a landfill in 1974. Industrial wastes were received by the Landfill until 1993, and the Landfill was closed in 1995. The EPA has conducted a Remedial Investigation/Feasibility Study and issued a Proposed Plan to clean up the site. See "Description of Business-Environmental Regulation" contained in Item 1 of this report.

Change in control provisions may adversely affect existing stockholders.

Our restated certificate of incorporation and the Delaware General Corporation Law contain provisions that may have the effect of making more difficult or delaying attempts by others to obtain control of our company, even when these attempts may be in the best interests of stockholders. Our restated certificate also authorizes the board of directors, without stockholder approval, to issue one or more series of preferred stock, which could have voting and conversion rights that adversely affect or dilute the voting power of the holders of common stock. Delaware law also imposes conditions on certain business combination transactions with "interested stockholders."

We have also adopted a stockholders' rights plan intended to encourage anyone seeking to acquire our company to negotiate with our board of directors prior to attempting a takeover. While the plan was designed to guard against coercive or unfair tactics to gain control of our company, the plan may have the effect of making more difficult or delaying any attempts by others to obtain control of our company.

We do not pay cash dividends.

We have never paid any cash dividends on our common stock and do not anticipate that we will pay cash dividends in the foreseeable future. Instead, we intend to apply earnings to the expansion and development of our business.

ITEM 2. PROPERTIES

We own and occupy a 97,000 square foot facility in Tempe, Arizona, which houses our U.S.-based manufacturing operations and our research, development, engineering, design, and corporate functions. We entered into a ground lease for this facility that extends through March 31, 2069, subject to renewal and purchase options as well as early termination provisions. Costs to initially construct, furnish, and equip the Tempe facility were approximately \$24.0 million.

We lease approximately 7,035 square feet of space in Boulder, Colorado, where we maintain a business unit focusing on personal microdisplay systems and comprised of former Zight Corporation employees.

We lease approximately 3,500 square feet of office and warehouse space in Swindon, United Kingdom, where we maintain our European administrative offices and a distribution warehouse.

We lease an approximately 65,000 square foot manufacturing facility in Carmelray Industrial Park, Barangay Tulo, Calamba, Laguna, the Philippines with an option to purchase the premises. The lease expires in 2010.

We occupy approximately 16,500 square feet of manufacturing space in Manila, the Philippines, at the TEAM facility. We have a sub-assembly agreement with TEAM with respect to operations at that facility. We expect to vacate that property and terminate the sub-assembly agreement in the second quarter of 2002.

We own and occupy a 46,000 square foot facility in Beijing, China, including 29,000 square feet of manufacturing space. We constructed this facility on property that we have purchased on a long-term land use contract. Costs to construct, furnish, and equip the Beijing facility were approximately \$10.9 million.

ITEM 3. LEGAL PROCEEDINGS

There are no legal proceedings to which we are a party or to which any of our properties are subject, other than routine litigation incident to our business that is covered by insurance or an indemnity or that we do not expect to have a material adverse effect on our company. It is possible, however, that we could incur claims for which we are not insured or that exceed the amount of our insurance coverage.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

Our common stock has been listed on the New York Stock Exchange under the symbol "TFS" since December 29, 1994. The following table sets forth the quarterly high and low sales prices of our common stock as reported on the New York Stock Exchange for the periods indicated, adjusted to reflect the four-for-three split of our common stock effected in December 1999 and the three-for-two split of our common stock effected in May 2000.

	<u>High</u>	<u>Low</u>
1999:		
First Quarter.....	\$ 8.00	\$ 4.31
Second Quarter.....	6.91	4.03
Third Quarter.....	11.06	6.84
Fourth Quarter.....	27.33	11.13
2000:		
First Quarter.....	\$ 43.71	\$ 25.46
Second Quarter.....	80.75	36.75
Third Quarter.....	67.25	24.00
Fourth Quarter.....	39.06	16.44
2001:		
First Quarter.....	\$ 27.11	\$ 11.74
Second Quarter.....	18.35	10.68
Third Quarter.....	23.85	14.18
Fourth Quarter.....	21.74	14.60
2002:		
First Quarter (through March 11, 2002)	\$ 17.80	\$ 12.19

As of March 11, 2002, there were approximately 687 holders of record of our common stock. The closing sale price of our common stock on the New York Stock Exchange on March 11, 2002 was \$14.06 per share.

Our policy is to retain earnings to provide funds for the operation and expansion of our business. We have not paid cash dividends on our common stock and do not anticipate that we will do so in the foreseeable future. Furthermore, our credit facility with Comerica Bank does not permit us to pay dividends without the consent of Comerica Bank. The payment of dividends in the future will depend on our growth, profitability, financial condition, and other factors that our board of directors may deem relevant.

ITEM 6. SELECTED FINANCIAL DATA

The selected historical financial data presented below are derived from our consolidated financial statements, which have been audited by Arthur Andersen LLP, independent public accountants. The selected financial data should be read in conjunction with Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the Consolidated Financial Statements and the Notes thereto included elsewhere in this report. All share amounts and per share data have been adjusted to reflect the four-for-three split of our common stock effected in December 1999 and the three-for-two split of our common stock effected in May 2000.

	Years Ended December 31,				
	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>
	(in thousands, except per share data)				
Consolidated Statement of Operations Data:					
Net sales.....	\$ 84,642	\$ 95,047	\$147,408	\$160,684	\$119,136
Costs and expenses:					
Cost of sales.....	64,760	76,149	117,583	124,724	121,514
Selling, general, and administrative.....	6,557	7,334	11,170	9,501	10,130
Research, development, and engineering	5,106	7,159	8,745	13,295	17,618
	<u>76,423</u>	<u>90,642</u>	<u>137,498</u>	<u>147,520</u>	<u>149,262</u>
Operating income (loss)	8,219	4,405	9,910	13,164	(30,126)
Other income (expense), net	358	(42)	(18)	7,184	3,450
Minority interest in loss of consolidated subsidiary	-	-	-	-	167
Income (loss) before income taxes.....	8,577	4,363	9,892	20,348	(26,509)
Provision for (benefit from) income taxes	3,334	1,773	2,968	5,514	(8,745)
Net income (loss).....	<u>\$ 5,243</u>	<u>\$ 2,590</u>	<u>\$ 6,924</u>	<u>\$ 14,834</u>	<u>\$ (17,764)</u>
Earnings (loss) per common share:					
Basic.....	\$ 0.33	\$ 0.17	\$ 0.44	\$ 0.73	\$ (0.83)
Diluted	\$ 0.32	\$ 0.17	\$ 0.43	\$ 0.69	\$ (0.83)
Weighted average number of common shares:					
Basic	<u>15,708</u>	<u>15,277</u>	<u>15,563</u>	<u>20,457</u>	<u>21,401</u>
Diluted	<u>16,180</u>	<u>15,604</u>	<u>16,005</u>	<u>21,365</u>	<u>21,401</u>

	<u>December 31,</u>				
	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>
	(in thousands)				
Consolidated Balance Sheet Data:					
Working capital	\$ 29,113	\$ 24,825	\$ 60,853	\$194,492	\$169,123
Total assets.....	72,835	77,904	126,930	267,843	245,888
Notes payable to banks, term loans and long-term debt	-	8,095	-	2,706	2,706
Stockholders' equity	56,525	51,096	101,220	242,002	223,944

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

FORWARD-LOOKING STATEMENTS AND FACTORS THAT MAY AFFECT RESULTS

In addition to the historical information contained herein, this Report contains forward-looking statements, including those relating to revenue, earnings margins, pricing pressures, quarterly fluctuations, the impact of moving our Arizona LCD line, material shortages, research, development, and engineering expense, selling, general and administrative expenses, and liquidity and anticipated cash needs that involve risks and uncertainties that could cause actual results to differ materially.

We caution that these statements are qualified by various factors that may affect future results, including the Special Considerations in Item 1.

Overview

We offer advanced design and manufacturing services to original equipment manufacturers, commonly referred to as OEMs. We specialize in custom display modules utilizing liquid crystal display, or LCD, components and technology. Our LCD modules have varying levels of integration. At a minimum, each module includes an LCD, a custom LCD driver, and a flexible connector. We also provide value-added services, which increase our competitiveness, by assembling additional components onto the module based upon the specific needs of the customer. These additional components may include such items as keypads, microphones, speakers, light guides, and optics.

We currently sell substantially all of our LCD modules to major OEMs. We derived more than 80% of our net sales in 1999, 2000, and 2001 from the mobile handset market. When we win a design program, our customers sometimes pay all or a portion of our nonrecurring engineering expenses to defray the costs of custom design, as well as all or a portion of the costs of nonrecurring tooling for custom components. The typical design program life cycle of a custom-designed LCD module is three to fifteen months and includes technical design, prototyping, pilot manufacturing, and high-volume manufacturing. In 2001, our strategy was to seek large volume programs from major OEMs. In that situation, the minimum production quantity for an LCD module typically approximates 100,000 units per year, although the production rate for some programs has been higher than 100,000 units per week. Recently, we have re-focused our strategy on lower volume programs with potentially higher gross margins. We have re-focused our strategy because some OEMs with high-volume programs have begun to expect to purchase LCD modules for less than industry costs. The selling price of our LCD modules usually ranges between \$3 and \$50 per unit. We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed or determinable, and collectability is probable. Generally, all of these conditions are met at the time we ship products to customers.

We experienced substantial growth from 1993 through 1995, primarily as a result of sales to OEMs in the wireless communications industry, which grew substantially during that period. During that period, our primary customer was Motorola. In 1996, our net sales declined, primarily as a result of the phase-out by Motorola of a significant family of programs. In 1997, our net sales returned to pre-1996 levels primarily as a result of several new programs and customers. We experienced substantial growth again in 1999 and 2000, but due to the worldwide economic slowdown in 2001, our sales substantially declined. Motorola and its subcontractors accounted for 34.6% of our net sales in 1997, 63.6% in 1998, 86.1% in 1999, 86.9% in 2000, and 85.4% in 2001.

During the past several years, we have experienced seasonal quarterly fluctuations in our net sales as our OEM customers developed retail products with shorter product life cycles and phased out older programs early in the year following holiday sales. As a result, sales usually peak in the fourth quarter of a calendar year and are lower in the following quarter. This pattern did not occur in the fourth quarter of 2000 and the first quarter of 2001 as a result of supply interruptions in the fourth quarter and reduced expectations in the mobile handset market, but this pattern is expected to occur in the fourth quarter of 2001 and the first quarter of 2002.

Several factors impact our gross margins, including manufacturing efficiencies, product mix, product differentiation, product uniqueness, inventory management, and volume pricing. In addition, significant pricing pressure exists in the LCD module market. Accordingly, those factors have impacted, and will continue to impact, our overall margins.

We vertically integrate our manufacturing facilities. We generally have used our own high-volume LCD production line for the manufacture of more technologically complex and custom high-volume LCDs. We also purchased LCDs from third-party sources to provide us an alternate source and to ensure available capacity. In order to take advantage of lower labor costs, we have traditionally shipped LCDs to our facilities in Manila, the Philippines, or Beijing, China, for assembly into modules.

During the second quarter of 2001, we announced our strategic decision to move our front-end, high-volume LCD line from Arizona to Asia. The LCD line was operated in Arizona through the third quarter of 2001, but the line is now shut down and in transit to Asia. We expect it will take two to three quarters to re-install the line in Asia. We expect to incur no interruption in our LCD module production, as we will rely on built inventory stock and third-party sources during the period that the line is being moved.

In Manila, we assemble LCDs into modules and perform certain back-end LCD processing operations. Our back-end LCD processing operations have been and will continue to be conducted in Manila through a third-party subcontract manufacturer through April 2002. After April 2002, the Manila back-end LCD processing will be performed in our facility. The subcontractor supplies direct labor and incidental services required to manufacture our products. All indirect manufacturing employees, primarily technicians, supervisors, and engineers, are our employees. Our LCD module operations are conducted at our own factory, where we employ our own employees and do not employ the services of a third-party subcontractor.

In Beijing, we also assemble LCDs into modules. Our LCD module operations in Beijing are conducted at a facility we own through a wholly owned foreign subsidiary. We employ our own employees in Beijing.

Selling, general, and administrative expense consists principally of administrative and selling costs, salaries, commissions, and benefits to personnel and related facility costs. We make substantially all of our sales directly to OEMs, and our sales force consists of a small number of direct technical sales persons. As a result, there is no material cost of distribution in our selling, general, and administrative expense. In addition, we have recently incurred substantial marketing and administrative expenses in connection with our *LCoS* microdisplay business.

Research, development, and engineering expense consists principally of salaries and benefits to scientists, design engineers, and other technical personnel, related facility costs, process development costs, and various expenses for projects, including new product development. Research, development, and engineering expense continues to increase as we develop new display products and technologies, especially *LCoS* microdisplays.

Since 1997, we have been working on the development of *LCoS* microdisplays. In 1997, we entered into a strategic alliance with National Semiconductor Corporation for the development of *LCoS* microdisplay products. Under that alliance, National focused on the silicon technologies needed for microdisplays, and we focused on the liquid crystal technologies. In 1999, National decided to close its microdisplay business unit. In connection with that closing, in July 1999, we purchased certain assets and licensed silicon technologies from National relating to *LCoS* microdisplays. We paid approximately \$3.0 million in cash and issued warrants to purchase 140,000 shares of our common stock in the transaction, which valued the transaction at approximately \$3.6 million. No additional payments are required under the licenses. We also hired several key technical employees of National to assist in the implementation of the acquired technologies.

In April 1998, we entered into a strategic relationship with Inviso, Inc., a privately held company with numerous patents and proprietary technology related to microdisplay development. We acquired a minority equity interest in Inviso for approximately \$3.3 million. In March 2000, we acquired an additional interest in Inviso for \$500,000, raising our total minority equity interest to \$3.8 million. As part of this strategic relationship, we provided proprietary manufacturing capabilities and liquid crystal expertise, and Inviso provided patented and proprietary technologies and components for the joint development of microdisplay products. In the second quarter of 2001, we wrote off our investment of \$3.8 million in Inviso because we determined that our investment was impaired, as that term is defined under generally accepted accounting principles. Subsequent to our write-off, Inviso was unable to raise funds to operate its business and has since ceased operations.

In August 2000, our wholly owned subsidiary, Three-Five Systems (Beijing) Co., Ltd., entered into a strategic agreement with Heibei Jiya Electronics, Co., Ltd. ("Jiya"), a Chinese-based manufacturer of LCD glass. Under the terms of the agreement, Jiya agreed to provide LCD glass to us and reserve a significant amount of LCD glass manufacturing capacity for us. In exchange, we agreed to assist Jiya in further developing its LCD glass manufacturing processes. At the conclusion in February 2002, we had the option to extend the agreement or to acquire a majority interest in Jiya. We elected not to extend the agreement or acquire a majority interest.

In 2001, we invested \$1.25 million in Silicon Bandwidth, Inc., a privately held company providing unique semiconductor and optoelectronic interconnect solutions based upon multiple, patented, proprietary technologies. We are working closely with Silicon Bandwidth to design unique, cost-effective, reconfigurable packaging platforms for *LCoS* microdisplays.

During the second quarter of 2001, we formed a new company, Three-D OLED L.L.C., with DuPont Displays, a business unit of DuPont Corporation. We own 51% of this new venture, and DuPont Displays owns 49%. The companies have pledged \$3.0 million to the venture. Our share of that obligation is slightly over \$1.5

million. This new venture was formed to design, assemble, and market OLED (Organic Light Emitting Diode) display modules to OEMs worldwide. The venture focuses on glass substrate, passive matrix OLED displays. OLED technology utilizes advanced materials to produce bright, high-contrast, emissive displays. The venture is headquartered in Tempe, Arizona, within our existing corporate headquarters, and is controlled by us. The venture will utilize the glass panel output of a planned high-volume manufacturing plant located in Taiwan, announced by DuPont and RiTdisplay Technology Corporation. The venture may also use other OLED glass panel sources. OLED display modules will be assembled at our display module assembly facilities in Beijing and Manila.

In January 2002, we purchased the intellectual property of Zight Corporation, a private company focused on microdisplays for personal display system applications. In addition, we purchased certain key assets of Zight at a creditor's auction and we hired six key technical persons formerly employed by Zight. The total cost of the acquisition was approximately \$2.6 million.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations are based upon our financial statements, which have been prepared in accordance with generally accepted accounting principles (GAAP) of the United States of America. During preparation of these financial statements, we are required to make estimates and judgements that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an on-going basis, we evaluate our estimates, including those related to product returns, bad debts, inventories, investments, fixed assets, intangible assets, income taxes, pensions and other post-retirement benefits, contingencies and litigation. We base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances. The results form the basis for making judgements about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

We believe the following critical accounting policies affect our more significant judgements and estimates used in the preparation of our financial statements.

We recognize sales when persuasive evidence of a sale exists, that is, a product is shipped under an agreement with a customer, risk of loss and title have passed to the customer, the fee is fixed or determinable, and collection of the resulting receivable is reasonably assured.

We maintain an allowance for doubtful accounts for estimated losses resulting from the inability of our customers to make required payments. We determine the adequacy of this allowance by regularly evaluating individual customer receivables, considering a customer's financial condition, credit history and current economic conditions. If the financial condition of our customers were to deteriorate, additional allowances may be required.

We write down our inventory for estimated obsolescence or unmarketable inventory equal to the difference between the cost of inventory and the estimated market value based upon assumptions about future demand and market conditions. If actual market conditions are less favorable than those projected by management, additional inventory write-downs may be required.

We estimate our actual current tax exposure together with the temporary differences that have resulted from the differing treatment of items dictated by generally accepted accounting principles versus US tax laws. These temporary differences result in deferred tax assets and liabilities. On an on-going basis, we then assess the likelihood that our deferred tax assets will be recovered from future taxable income. If we were to believe that the recovery were not more likely than not, we would establish a valuation allowance against the deferred tax asset and charge the amount as an income tax expense in the period in which such a determination were made.

Results of Operations

The following table sets forth, for the periods indicated, the percentage of net sales of certain items in our Consolidated Financial Statements.

	Years Ended December 31,		
	1999	2000	2001
Net sales.....	100.0%	100.0%	100.0%
Costs and expenses:			
Cost of sales.....	79.8	77.6	102.0
Selling, general, and administrative.....	7.6	5.9	8.5
Research, development, and engineering.....	5.9	8.3	14.8
	<u>93.3</u>	<u>91.8</u>	<u>125.3</u>
Operating income (loss)	6.7	8.2	(25.3)
Other income, net.....	-	4.5	2.9
Minority interest in loss of consolidated subsidiary.....	-	-	0.1
Income (loss) before income taxes.....	6.7	12.7	(22.3)
Provision for (benefit from) income taxes	2.0	3.5	(7.4)
Net income (loss)	<u>4.7%</u>	<u>9.2%</u>	<u>(14.9)%</u>

Year ended December 31, 2001 compared to year ended December 31, 2000

Net Sales. Net sales decreased 25.9% to \$119.1 million in 2001 from \$160.7 million in 2000. Although some of the decrease was attributable to the reduced volume of unit shipments, the revenue decrease was primarily the result of decreased selling prices of LCD modules due to excess worldwide LCD capacity. We shipped 13.0 million units in 2001 versus 14.9 million units in 2000.

Cost of Sales. Cost of sales increased to 102.0% of net sales in 2001 from 77.6% in 2000. This percentage increase resulted primarily from reduced selling prices and reduced operating efficiencies. Also contributing to the increased cost of sales was the sale of LCoS microdisplay products at a loss. We incurred a loss at the gross margin line for our LCoS microdisplay sales primarily because of very low manufacturing yields.

Selling, General, and Administrative Expense. Selling, general, and administrative expense increased 6.3% to \$10.1 million in 2001 from \$9.5 million in 2000. Selling, general, and administrative expense was 8.5% of net sales in 2001 compared to 5.9% of net sales in 2000. This increase in percent was due to lower net sales in 2001.

Research, Development, and Engineering Expense. Research, development, and engineering expense increased 32.3% to \$17.6 million in 2001 from \$13.3 million in 2000. Research, development, and engineering expense was 14.8% of net sales in 2001 compared to 8.3% of net sales in 2000. Research, development, and engineering expense overall increased as the result of the continued development of LCoS microdisplays.

The selling, general, and administrative expense and the research, development, and engineering expense in each year included significant operating expenditures in LCoS microdisplays at a time when there was very little LCoS microdisplay revenue. In 2001, we incurred approximately \$13.5 million of operating expenses specifically related to LCoS microdisplays compared to approximately \$9.4 million in 2000.

Other Income (Expense), Net. Other income in 2001 was \$3.4 million compared to other income of \$7.2 million in 2000. The primary difference was the write-off of our \$3.8 million investment in Inviso, Inc. Interest earned in 2001 was \$7.3 million compared with \$7.4 million in 2000.

Provision for (Benefit from) Income Taxes. We recorded a benefit from income taxes of \$8.7 million in 2001 compared to a provision for income taxes of \$5.5 million in 2000. In recording the benefit, we used an effective tax rate of 33.0% in 2001 compared to an effective tax rate of 27.1% in 2000. The difference is primarily a change in relative operational results between U.S. and foreign jurisdictions, and a benefit for research and development credits recorded during 2000. In 2002, we expect to record a tax benefit against any operating losses we incur using an estimated rate of approximately 33%. The benefit for income taxes that we recorded has generated a \$5.2 million deferred tax asset at December 31, 2001 related to net operating loss and tax credit carryforwards of which no valuation allowance has been recorded as management believes it is more likely than not that these deferred tax assets will be fully realized.

Net Income. In 2001, we recorded a net loss of \$17.8 million using generally accepted accounting principles, or \$0.83 per diluted share compared to net income of \$14.8 million, or \$0.69 per diluted share, in 2000. We recorded several unusual expense items in the second quarter of 2001, including the write-off of our investment in Inviso, Inc., the write-off of certain inventory, and the write-off of an Enterprise Resource Planning system implementation. On an after-tax basis, those unusual expenses totaled \$5.1 million, or \$0.24 per diluted share. The direct view display segment recorded a net loss of \$3.7 million, or \$0.17 loss per diluted share in 2001 compared to net income of \$20.9 million, or \$0.97 earnings per share in 2000. The decline in revenue was related to intense pricing pressures for our modules and the worldwide economic slowdown in 2001. The microdisplay segment recorded a net loss of \$14.1 million, or \$0.66 per diluted share in 2001 compared to a net loss of \$6.1 million, or \$0.28 per diluted share in 2000. The increased loss was created by intensified RD&E efforts to bring microdisplays to market.

Year ended December 31, 2000 compared to year ended December 31, 1999

Net Sales. Net sales increased 9.0% to \$160.7 million in 2000 from \$147.4 million in 1999. This increase was the result of several new programs, primarily for Motorola.

Cost of Sales. Cost of sales decreased to 77.6% of net sales in 2000 from 79.8% in 1999. This percentage decrease resulted primarily from increased operating efficiencies in the first half of 2000 and cost reduction efforts. Pricing pressures and under-absorption issues resulting from decreased production levels in the second half of 2000 actually resulted in a sharp increase in the cost of sales in the second half of 2000, especially in the fourth quarter.

Selling, General, and Administrative Expense. Selling, general, and administrative expense decreased 15.2% to \$9.5 million in 2000 from \$11.2 million in 1999. Selling, general, and administrative expense was 5.9% of net sales in 2000 compared to 7.6% in 1999. The decrease in selling, general, and administrative expense was a result of our efforts to hold down costs.

Research, Development, and Engineering Expense. Research, development, and engineering expense increased 52.9% to \$13.3 million in 2000 from \$8.7 million in 1999. Research, development, and engineering expense was 8.3% of net sales in 2000 compared to 5.9% in 1999. In general, research, development, and engineering expense overall increased as the result of the development of new display products and technologies, including LCoS microdisplays. Expenses also increased in LCD engineering as a result of the increased number of design wins.

The selling, general, and administrative expense and the research, development, and engineering expense in each year included significant operating expenditures in LCoS microdisplays at a time when there was very little LCoS microdisplay revenue. In 2000, we incurred approximately \$9.4 million of operating expenses specifically related to LCoS microdisplays compared to approximately \$6.6 million in 1999.

Other Income (Expense), Net. Other income in 2000 was \$7.2 million compared to other expense of \$18,000 in 1999. We had sharply higher interest income and reduced interest expense in 2000 as the result of decreased debt and increased cash and investment balances. Those increased cash and investment balances were primarily as a result of our equity offering in May 2000.

Provision for Income Taxes. We recorded a provision for income taxes of \$5.5 million in 2000 compared to \$3.0 million in 1999. The effective tax rate was 27.1% in 2000 compared to 30.0% in 1999. This change resulted primarily from tax benefits in the third and fourth quarters of 2000 relating to research and development tax credits. Generally, the tax rate was also lower in 2000 as a result of higher net income in China, which is a low tax rate jurisdiction. In 2001, we expect our overall tax rate to be approximately 33.0%.

Net Income. Net income increased 114.5% to \$14.8 million, or \$0.69 per diluted share, in 2000 from \$6.9 million, or \$0.43 per diluted share, in 1999. The direct view display segment recorded net income of \$20.9 million, or \$0.97 earnings per share in 2000 compared to net income of \$11.4 million, or \$0.71 earnings per share in 1999. The microdisplay segment recorded a net loss of \$6.1 million, or \$0.28 loss per share in 2000 compared to a net loss of \$4.5 million, or \$0.28 loss per share in 1999.

Quarterly Results of Operations

The following table presents unaudited consolidated statement of operations data for each of the eight quarters in the period ended December 31, 2001, as well as such data expressed as a percentage of net sales. We believe that all necessary adjustments have been included to present fairly the quarterly information when read in conjunction with the Consolidated Financial Statements. The operating results for any quarter are not necessarily indicative of the results for any subsequent quarter.

	Quarters Ended (in thousands)							
	2000				2001			
	Mar. 31	June 30	Sept. 30	Dec. 31	Mar. 31	June 30	Sept. 30	Dec. 31
Net sales.....	\$39,162	\$44,926	\$40,231	\$36,365	\$ 35,616	\$ 25,013	\$ 26,594	\$ 31,913
Cost and expenses:								
Cost of sales.....	29,360	34,157	31,115	30,092	31,243	32,160	27,453	30,658
Selling, general, and administrative	2,262	2,418	2,453	2,368	2,491	2,922	2,444	2,273
Research, development, and engineering.....	2,763	2,989	3,734	3,809	3,661	4,795	4,224	4,938
	34,385	39,564	37,302	36,269	37,395	39,877	34,121	37,869
Operating income (loss)	4,777	5,362	2,929	96	(1,779)	(14,864)	(7,527)	(5,956)
Other income (expense), net.....	580	1,165	2,736	2,703	2,140	(2,073)	1,497	1,886
Minority interest in consolidated subsidiary	-	-	-	-	-	-	62	105
Income (loss) before income taxes.....	5,357	6,527	5,665	2,799	361	(16,937)	(5,968)	(3,965)
Provision for (benefit from) income taxes	1,770	2,158	1,320	266	119	(5,589)	(1,972)	(1,303)
Net income (loss)	\$ 3,587	\$ 4,369	\$ 4,345	\$ 2,533	\$ 242	\$ (11,348)	\$ (3,996)	\$ (2,662)

	Percentage of Net Sales Quarters Ended							
	2000				2001			
	Mar. 31	June 30	Sept. 30	Dec. 31	Mar. 31	June 30	Sept. 30	Dec. 31
Net sales.....	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost and expenses:								
Cost of sales.....	75.0	76.0	77.3	82.7	87.7	128.5	103.2	96.0
Selling, general, and administrative	5.7	5.4	6.1	6.5	7.0	11.7	9.2	7.1
Research, development, and engineering	7.1	6.7	9.3	10.5	10.3	19.2	15.9	15.5
	87.8	88.1	92.7	99.7	105.0	(159.4)	(128.3)	(118.6)
Operating income (loss)	12.2	11.9	7.3	0.3	(5.0)	(59.4)	(28.3)	(18.6)
Other income (expense), net.....	1.5	2.6	6.8	7.4	6.0	(8.3)	5.7	5.9
Minority interest in consolidated subsidiary.....	-	-	-	-	-	-	0.2	0.3
Income (loss) before income taxes.....	13.7	14.5	14.1	7.7	1.0	(67.7)	(22.4)	(12.4)
Provision for (benefit from) income taxes	4.5	4.8	3.3	0.7	0.3	(22.3)	(7.4)	(4.1)
Net income (loss)	9.2%	9.7%	10.8%	7.0%	0.7%	(45.4)%	(15.0)%	(8.3)%

Historically, we have experienced seasonal fluctuations in our net sales. OEM customers that purchase our products for incorporation into retail products, such as mobile handsets, typically increase their purchases during the year-end holiday period and phase out old programs early in the year following holiday sales. As a result, net sales typically peak in the fourth quarter and reach a seasonal low point in the first quarter. This pattern did not occur in 2001 as a result of supply interruptions in the fourth quarter of 2000 and reduced expectations in the mobile handset market. The pattern is expected to resume for the fourth quarter of 2001 and the first quarter of 2002.

There is significant pricing pressure in higher volume programs in the wireless communications and office automation industries. This pricing pressure accelerated in late 2000 and early 2001 as a result of the economic slowdown in 2001.

As revenue declined in the second half of 2000, absorption issues from the reduced manufacturing levels resulted in lowered margins. In addition, pricing pressures in the mobile handset business also contributed to the reduced gross margins. In 2001, severe pricing pressures in LCD modules as a result of excess capacity in LCDs resulted in substantially reduced selling prices and, as a result, in substantially reduced gross margins.

In 2000 and 2001, we continued to expand and intensify our research and development efforts on proprietary display products, such as *LCoS* microdisplays. We had other expense in the second quarter of 2001 as a result of writing off our Inviso investment.

Liquidity and Capital Resources

At December 31, 2001, we had cash, cash equivalents and short- and long-term liquid investments of \$156.1 million compared to \$170.1 million at December 31, 2000.

In 2001, we had \$4.1 million in net cash outflow from operations compared to \$6.1 million in net cash flow from operations in 2000. Cash flow from operations during 2001 decreased as a result of lower revenue. As of December 31, 2001, our inventory turns were 6.7 and DSOs (Day Sales Outstanding) were 64 days as compared with 7.6 inventory turns and 54 DSOs as of December 31, 2000. Our depreciation and amortization expense was \$6.0 million in 2001 and 2000.

Our working capital was \$169.1 million at December 31, 2001, down from \$194.5 million at December 31, 2000. Our current ratio at December 31, 2001 was 8.8-to-1 compared to 10.1-to-1 at December 31, 2000. The decreases in our working capital and current ratio occurred primarily because of our net loss and cash used in operations.

In February 2002, we renewed our credit facility with Comerica Bank. That credit facility is a \$15.0 million unsecured revolving line of credit that matures in January 2003. No borrowings were outstanding under that credit facility on December 31, 2001. Advances under the new facility may be made as prime rate advances, which accrue interest payable monthly at the bank's prime lending rate, or as LIBOR rate advances, which bear interest at 150 basis points in excess of the LIBOR base rate. As of December 31, 2001, our Beijing subsidiary had an outstanding \$2.7 million term loan due May 8, 2002 to the Bank of China, which was secured by a \$3.0 million stand-by letter of credit issued by Comerica Bank.

Capital expenditures during 2001 were approximately \$8.3 million. Those capital expenditures consisted of \$3.1 million for equipment, leasehold improvements, intangibles, and license costs in Manila, Beijing, and Arizona, and \$5.2 million for *LCoS* microdisplays. Capital expenditures during 2000 were approximately \$8.8 million. These capital expenditures consisted of \$6.4 million for equipment, leasehold improvements, intangibles, and license costs in Manila, Beijing, and Arizona, and \$2.4 million for *LCoS* microdisplays.

The following tables list our contractual obligations and commercial commitments:

Contractual Obligations (in thousands)	Total Amounts Committed	Payments due by Period			
		Less than 1 Year	1-3 Years	4-5 Years	Over 5 Years
Term Loan	\$ 2,706	\$ 2,706	\$ -	\$ -	\$ -
Operating Leases	<u>15,910</u>	<u>1,125</u>	<u>1,969</u>	<u>2,080</u>	<u>10,736</u>
Total Contractual Cash Obligations	<u>\$ 18,616</u>	<u>\$ 3,831</u>	<u>\$ 1,969</u>	<u>\$ 2,080</u>	<u>\$ 10,736</u>

Amount of Commitment Expiration Per Period

Other Commercial Commitments (in thousands)	Total Amounts Committed	Less than 1 Year	Amount of Commitment Expiration Per Period		
			1-3 Years	4-5 Years	Over 5 Years
Guarantee	\$ 500	\$ 94	\$ 193	\$ 213	-

The operating leases include a lease for our factory in Manila and our ground lease in Tempe, Arizona. These are described in detail in Note 7 of the Notes to Consolidated Financial Statements. The guarantee relates to our guarantee in connection with a Small Business Administration loan given to VoiceViewer Technology, Inc., a private company developing microdisplay products. The \$3.0 million standby letter of credit issued by Comerica has not been included in the Other Commercial Commitments table because it only exists to secure the term loan obligation of \$2.7 million, which is already included in the table for Contractual Obligations. We have no other long-term debt, capital lease obligations, unconditional purchase obligations or other long-term obligations and we do not have any other commercial commitments. We have no off-balance sheet arrangements.

We believe that our existing balances of cash, cash equivalents, and investments will provide adequate sources to fund our operations and planned expenditures through 2002, as well as meet our contractual obligations. Specifically, we have \$156.1 million in cash, cash equivalents, and short- and long-term loan investments. Our capital expenditures in 2002 are expected to be around \$10 million, and we expect operating cash outflow to be minimal relative to our cash reserves. We continue to seek other alliances or acquisitions and additional relationships with regard to the strategic development of various new technologies, especially LCoS microdisplays, that may also require us to make additional capital investments. In such a case, we may need to expand our loan commitments or pursue alternate methods of financing or raise capital. We cannot provide assurance that adequate additional loan commitments or alternative methods of financing will be available or, if available, that they will be on terms acceptable to us.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Derivative Financial Instruments, Other Financial Instruments, and Derivative Commodity Instruments

At December 31, 2001, we did not participate in any derivative financial instruments, or other financial and commodity instruments for which fair value disclosure would be required under Statement of Financial Accounting Standards No. 107. We hold no investment securities that would require disclosure of market risk.

We have certain receivables denominated in Chinese renminbi. To eliminate our exposure to changes in the U.S. dollar/Chinese renminbi exchange rate, we have entered into forward contracts to protect future cash flows. We have designated the forward contracts as cash flow hedges. Accordingly, we account for changes in the fair value of our forward contracts, based on changes in the forward exchange rate, with all changes in fair value reported in other comprehensive income. Amounts in other comprehensive income will be reclassified into earnings upon settlement of the forward contract. As of December 31, 2001, we had four forward contracts outstanding with a cumulative notional value of \$4.0 million expiring through April 2002.

Primary Market Risk Exposures

Our primary market risk exposures are in the areas of interest rate risk and foreign currency exchange rate risk. We have a revolving line of credit with a variable interest rate of LIBOR (1.86% at December 31, 2001) plus 150 basis points. At December 31, 2001, no borrowings were outstanding under this line of credit.

We generally sell our products and services and negotiate purchase orders with our foreign suppliers in U.S. dollars. However, we have certain foreign currency exchange exposure as a result of our manufacturing operations in the Philippines and China and our sales and distribution facility in the United Kingdom. We have not incurred any material exchange gains or losses to date. Some of the expenses of these foreign operations are denominated in the Philippine peso, Chinese renminbi, and British pound sterling, respectively. These expenses include local salaries and wages, utilities, and some operating supplies. As a result of these sales and expenses, we do have accounts receivable and cash deposits in local currencies. We believe, however, that the operating expenses currently incurred in foreign currencies other than the Chinese renminbi are immaterial, and therefore any associated market risk is unlikely to have a material adverse effect on our business, results of operations, or financial condition. Although the Chinese currency currently is stable, its value in relation to the U.S. dollar is determined by the Chinese government. There is general speculation that China may devalue its currency. Devaluation of the Chinese currency could result in translation adjustments to our balance sheet as well as reportable losses depending on our monetary balances and outstanding indebtedness at the time of devaluation. The government of China historically has made it difficult to convert its local currency into foreign currencies. Although we from time to time may enter

into hedging transactions in order to minimize our exposure to currency rate fluctuations, the Chinese currency is not freely traded and thus is difficult to hedge. In addition, the government of China has imposed restrictions on Chinese currency loans to foreign-operated entities in China. Based on the foregoing, we cannot provide assurance that fluctuations and currency exchange rates in the future will not have an adverse effect on our operations.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Reference is made to the financial statements, the report thereon, the notes thereto, and the supplementary data commencing at page F-1 of this report, which financial statements, report, notes, and data are incorporated herein by reference.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Not applicable.

PART III

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

The information required by this Item relating to our directors is incorporated herein by reference to the definitive Proxy Statement to be filed pursuant to Regulation 14A of the Exchange Act for our 2002 Annual Meeting of Stockholders. The information required by this Item relating to our executive officers is included in Item 1, "Business – Executive Officers" of this report.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item is incorporated herein by reference to the definitive Proxy Statement to be filed pursuant to Regulation 14A of the Exchange Act for our 2002 Annual Meeting of Stockholders.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The information required by this Item is incorporated herein by reference to the definitive Proxy Statement to be filed pursuant to Regulation 14A of the Exchange Act for our 2002 Annual Meeting of Stockholders.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The information required by this Item is incorporated herein by reference to the definitive Proxy Statement to be filed pursuant to Regulation 14A of the Exchange Act for our 2002 Annual Meeting of Stockholders.

PART IV

ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K

(a) Financial Statements and Financial Statement Schedule

- (1) Financial Statements are listed in the Index to Financial Statements on page F-1 of this report.
- (2) Financial Statement Schedule:

Schedule II Valuation and Qualifying Accounts and Reserves is set forth on page S-1 of this report.

Other schedules are omitted because they are not applicable, not required, or because the required information is included in the consolidated financial statements or notes thereto.

(b) Reports on Form 8-K

Form 8-K, filed November 5, 2001, Item 9 – Regulation FD Disclosure.

(c) Exhibits

<u>Exhibit Number</u>	<u>Exhibits</u>
2	Amended and Restated Agreement and Plan of Reorganization ⁽¹⁾
3(a)	Amended and Restated Certificate of Incorporation of the Company ⁽²⁾
3(b)	Certificate of Amendment of Restated Certificate of Incorporation ⁽³⁾
3(c)	Amended and Restated Bylaws of the Company ⁽⁴⁾
4	Form of Certificate of Common Stock ⁽⁴⁾
4(b)	Rights Agreement, dated as of April 26, 2001, between Three-Five Systems, Inc. and Bank of New York, as Rights Agent, together with the following exhibits thereof: Exhibit A – Form of Certificate of Designation of Series A Junior Participating Preferred Stock of Three-Five Systems, Inc.; Exhibit B – Form of Right Certificate; Exhibit C – Summary of Rights to Purchase Shares of Preferred Stock of three-Five Systems, Inc. ⁽⁵⁾
10(a)	Amended and Restated 1997 Employee Option Plan (as amended through February 2001) ⁽⁶⁾
10(c)	Line of Credit Agreement between Three-Five Systems Limited and Barclays Bank, PLC ⁽¹⁾
10(g)	Form of Three-Five Systems, Inc. Distributor Franchise Agreement ⁽⁷⁾
10(j)	1993 Stock Option Plan ⁽⁷⁾
10(k)	1994 Automatic Stock Option Plan ⁽⁸⁾
10(o)	Lease dated April 1, 1994, between Papago Park Center, Inc. and Three-Five Systems, Inc. ⁽⁹⁾
10(v)	1997 Employee Stock Option Agreement ⁽¹⁰⁾
10(w)	Amended and Restated Three-Five Systems, Inc. 1998 Stock Option Plan, amended as of January 28, 1999, as approved by the Company's stockholders on April 22, 1999 ⁽¹¹⁾
10(x)	Amended and Restated 1994 Stock Option Plan for the Non-Employee Directors ⁽¹²⁾
10(z)	401(k) Profit Sharing Plan ⁽¹³⁾
10(aa)	Credit Agreement dated January 21, 2000, by and among Three-Five Systems, Inc., its subsidiaries, the Banks named therein, and Imperial Bank Arizona, as Agent and as Issuing Bank ⁽¹²⁾
10(cc)	Modification Agreement dated February 1, 2001, by and among Three-Five Systems, Inc., its subsidiaries, the Banks named in the Credit Agreement, and Imperial Bank as administrative agent and as Issuing Bank ⁽¹⁴⁾
21	List of Subsidiaries ⁽⁴⁾
23	Consent of Arthur Andersen LLP*

*Filed herein.

- (1) Incorporated by reference to the Registration Statement on Form S-4 of TF Consolidation, Inc. (Registration No. 33-33944) as filed March 27, 1990 and declared effective March 27, 1990.
- (2) Incorporated by reference to the Registrant's Form 10-QSB for the quarter ended March 31, 1994, as filed with the Commission on or about May 12, 1994.
- (3) Incorporated by reference to the Registrant's Form S-3/A as filed with the Commission on May 5, 2000.
- (4) Incorporated by reference to the Registration Statement on Form S-3 (Registration No. 333-84083) as filed on July 30, 1999, as amended by Form S-3/A filed on August 26, 1999, and declared effective September 27, 1999.
- (5) Incorporate by reference to the Registrant's Form 8-A as filed with the Commission on May 10, 2001.
- (6) Incorporated by reference to the Registrant's Form S-8 as filed with the Commission on November 3, 2000.
- (7) Incorporated by reference to the Registration Statement on Form S-1 (Registration No. 33-74788) as filed on February 3, 1994, and declared effective March 15, 1994.
- (8) Incorporated by reference to the Registration Statement on Form S-8 (Registration No. 33-88706) as filed on January 24, 1995.
- (9) Incorporated by reference to the Registrant's Form 10-K for the fiscal year ended December 31, 1996, as filed with the Commission on March 14, 1997.
- (10) Incorporated by reference to the Registrant's Form 10-K for the fiscal year ended December 31, 1997, as filed with the Commission on March 13, 1998, and as amended by Form 10-K/A filed with the Commission on March 23, 1998.
- (11) Incorporated by reference to the Registration Statement on Form S-8 (Registration No. 333-87875) as filed on September 27, 1999.
- (12) Incorporated by reference to the Registrant's Form 10-Q for the quarter ended June 30, 2001, as filed with the Commission on July 27, 2001.
- (13) Incorporated by reference to the Registration Statement on Form S-8 (Registration No. 333-57933) as filed on June 26, 1998.
- (14) Incorporated by reference to the Registrant's Form 10-K for the fiscal year ended December 31, 2000, as filed with the Commission on March 13, 2001.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

THREE-FIVE SYSTEMS, INC.

Date: March 19, 2002

By: /s/ Jack L. Saltich

Jack L. Saltich

President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Name</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Jack L. Saltich</u> Jack L. Saltich	President, Chief Executive Officer (Principal Executive Officer), and Director	March 19, 2002
<u>/s/ Jeffrey D. Buchanan</u> Jeffrey D. Buchanan	Executive Vice President, Chief Financial Officer, Secretary, Treasurer (Principal Financial Officer), and Director	March 19, 2002
<u>/s/ Robert T. Berube</u> Robert T. Berube	Corporate Controller (Principal Accounting Officer)	March 19, 2002
<u>/s/ David C. Malmberg</u> David C. Malmberg	Director	March 19, 2002
<u>/s/ Kenneth M. Julien</u> Kenneth M. Julien	Director	March 19, 2002
<u>/s/ Thomas A. Werner</u> Thomas A. Werner	Director	March 19, 2002
<u>/s/ David P. Chavoustie</u> David P. Chavoustie	Director	March 19, 2002
<u>/s/ Murray Goldman</u> Murray Goldman	Director	March 19, 2002

THREE-FIVE SYSTEMS, INC. AND SUBSIDIARIES
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

To Three-Five Systems, Inc.:

We have audited the accompanying consolidated balance sheets of THREE-FIVE SYSTEMS, INC. (the Company) (a Delaware corporation) and subsidiaries as of December 31, 2000 and 2001, and the related consolidated statements of operations, stockholders' equity, comprehensive income (loss) and cash flows for each of the three years in the period ended December 31, 2001. These financial statements and the schedule referred to below are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company and subsidiaries as of December 31, 2000 and 2001, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2001, in conformity with accounting principles generally accepted in the United States.

Our audits were made for the purpose of forming an opinion on the basic financial statements taken as a whole. The schedule listed on the Index to Consolidated Financial Statements is presented for purposes of complying with the Securities and Exchange Commission's rules and is not part of the basic financial statements. This schedule has been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, fairly states in all material respects the financial data required to be set forth therein in relation to the basic financial statements taken as a whole.

/s/ ARTHUR ANDERSEN LLP

Phoenix, Arizona
January 21, 2002

THREE-FIVE SYSTEMS, INC. AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

(in thousands, except share data)

	December 31,	
	2000	2001
<u>ASSETS</u>		
Current Assets:		
Cash and cash equivalents	\$ 45,645	\$ 37,003
Short-term investments	119,926	110,016
Accounts receivable, net	23,635	18,102
Inventories	20,516	15,629
Taxes receivable	-	3,960
Deferred tax asset	4,346	3,930
Other current assets	1,778	2,104
Total current assets	215,846	190,744
Long-term Investments	4,534	9,034
Property, Plant and Equipment, net	38,093	38,353
Intangibles, net	5,161	5,886
Long-term Deferred Tax Asset, net	-	219
Other Assets, net	4,209	1,652
	\$ 267,843	\$ 245,888
<u>LIABILITIES AND STOCKHOLDERS' EQUITY</u>		
Current Liabilities:		
Accounts payable	\$ 11,404	\$ 14,785
Accrued liabilities	7,005	4,130
Current taxes payable	239	-
Term loan	2,706	2,706
Total current liabilities	21,354	21,621
Deferred Tax Liability	4,487	-
Commitments and Contingencies		
Minority Interest in Consolidated Subsidiary	-	323
Stockholders' Equity:		
Preferred stock, \$.01 par value; 1,000,000 shares authorized, no shares issued or outstanding	-	-
Common stock, \$.01 par value; 60,000,000 shares authorized, 21,655,778 shares issued, 21,414,258 shares outstanding at December 31, 2000; 60,000,000 shares authorized, 21,894,628 shares issued, 21,503,911 shares outstanding at December 31, 2001	217	219
Additional paid-in capital	198,215	200,395
Retained earnings	48,430	30,666
Stock subscription note receivable	-	(163)
Accumulated other comprehensive loss	(234)	(21)
Less - Treasury stock, at cost, 241,520 shares at December 31, 2000 and 390,717 shares at December 31, 2001	(4,626)	(7,152)
Total stockholders' equity	242,002	223,944
	\$ 267,843	\$ 245,888

The accompanying notes are an integral part of these consolidated balance sheets.

THREE-FIVE SYSTEMS, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS

(in thousands, except share and per share data)

	Years Ended December 31,		
	1999	2000	2001
Net Sales	\$ 147,408	\$ 160,684	\$ 119,136
Costs and Expenses:			
Cost of sales	117,583	124,724	121,514
Selling, general and administrative	11,170	9,501	10,130
Research, development and engineering	8,745	13,295	17,618
	<u>137,498</u>	<u>147,520</u>	<u>149,262</u>
Operating income (loss)	<u>9,910</u>	<u>13,164</u>	<u>(30,126)</u>
Other Income (Expense):			
Interest, net	51	7,374	7,266
Loss on investment in start-up company	-	-	(3,820)
Other, net	<u>(69)</u>	<u>(190)</u>	<u>4</u>
	<u>(18)</u>	<u>7,184</u>	<u>3,450</u>
Minority Interest in Loss of Consolidated Subsidiary	-	-	167
Income (Loss) before Income Taxes	9,892	20,348	(26,509)
Provision for (benefit from) income taxes	<u>2,968</u>	<u>5,514</u>	<u>(8,745)</u>
Net Income (Loss)	<u>\$ 6,924</u>	<u>\$ 14,834</u>	<u>\$ (17,764)</u>
Earnings (Loss) Per Common Share:			
Basic	<u>\$ 0.44</u>	<u>\$ 0.73</u>	<u>\$ (0.83)</u>
Diluted	<u>\$ 0.43</u>	<u>\$ 0.69</u>	<u>\$ (0.83)</u>
Weighted Average Number of Common Shares:			
Basic	<u>15,563,121</u>	<u>20,457,226</u>	<u>21,401,159</u>
Diluted	<u>16,005,050</u>	<u>21,635,524</u>	<u>21,401,159</u>

The accompanying notes are an integral part of these consolidated financial statements.

THREE-FIVE SYSTEMS, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

For the Years Ended December 31, 1999, 2000 and 2001

(in thousands, except share data)

	Common Stock		Additional	Retained	Stock	Accumulated Other	Treasury	Total
	Shares Issued	Amount	Paid-in Capital	Earnings	Subscription Note Receivable	Comprehensive Income (Loss)	Stock	Stockholders' Equity
Balance, December 31, 1998	15,949,802	\$ 159	\$32,484	\$ 26,770	\$ -	\$ 8	\$ (8,325)	\$ 51,096
Net income	-	-	-	6,924	-	-	-	6,924
Foreign currency translation adjustments	-	-	-	-	-	(1)	-	(1)
Stock options exercised	150,650	2	184	(1)	-	-	41	226
Warrants issued	-	-	555	-	-	-	-	555
Tax benefit on stock option exercises	-	-	30	-	-	-	-	30
Sale of common stock, net of offering expenses	<u>2,758,686</u>	<u>28</u>	<u>34,135</u>	<u>(54)</u>	<u>-</u>	<u>-</u>	<u>8,281</u>	<u>42,390</u>
Balance, December 31, 1999	18,859,138	189	67,388	33,639	-	7	(3)	101,220
Net income	-	-	-	14,834	-	-	-	14,834
Foreign currency translation adjustments	-	-	-	-	-	(241)	-	(241)
Stock options exercised	222,126	2	1,477	-	-	-	-	1,479
Warrants exercised, net	102,014	1	-	-	-	-	-	1
Tax benefit on stock option exercises	-	-	674	-	-	-	-	674
Purchase of treasury stock	-	-	-	-	-	-	(4,623)	(4,623)
Sale of common stock, net of offering expenses	<u>2,472,500</u>	<u>25</u>	<u>128,676</u>	<u>(43)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>128,658</u>
Balance, December 31, 2000	21,655,778	217	198,215	48,430	-	(234)	(4,626)	242,002
Net loss	-	-	-	(17,764)	-	-	-	(17,764)
Unrealized gains on investments	-	-	-	-	-	260	-	260
Foreign currency translation adjustments	-	-	-	-	-	(47)	-	(47)
Stock subscription note receivable	-	-	410	-	(163)	-	-	247
Stock options exercised and other	238,850	2	1,182	-	-	-	-	1,184
Tax benefit on stock option exercises	-	-	588	-	-	-	-	588
Purchase of treasury stock	-	-	-	-	-	-	(2,526)	(2,526)
Balance, December 31, 2001	<u>21,894,628</u>	<u>\$ 219</u>	<u>\$200,395</u>	<u>\$ 30,666</u>	<u>\$ (163)</u>	<u>\$ (21)</u>	<u>\$ (7,152)</u>	<u>\$ 223,944</u>

The accompanying notes are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
For the Years Ended December 31, 1999, 2000 and 2001
(in thousands)

	Years Ended December 31,		
	<u>1999</u>	<u>2000</u>	<u>2001</u>
Net Income (Loss)	\$ 6,924	\$14,834	\$(17,764)
Other Comprehensive Income (Loss), net of taxes:			
Unrealized gains	-	-	260
Foreign currency translation adjustment	<u>(1)</u>	<u>(241)</u>	<u>(47)</u>
Comprehensive income (loss)	<u>\$ 6,923</u>	<u>\$ 14,593</u>	<u>\$(17,551)</u>

The accompanying notes are an integral part of these consolidated financial statements.

THREE-FIVE SYSTEMS, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands)

	Years Ended December 31,		
	1999	2000	2001
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income (loss).....	\$ 6,924	\$ 14,834	\$ (17,764)
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:			
Depreciation and amortization.....	5,898	6,039	5,961
Minority interest in consolidated subsidiary	-	-	(167)
Provision for (reduction of) accounts receivable valuation reserves.....	234	(311)	(180)
Loss on disposal of assets	-	74	1,371
Tax benefit on stock option exercises.....	30	674	588
Benefit from deferred taxes, net.	(723)	(626)	(4,575)
Loss on investment in start-up company.....	-	-	3,820
Changes in assets and liabilities:			
(Increase) decrease in accounts receivable	(2,519)	(2,438)	5,713
(Increase) decrease in inventories	149	(8,172)	4,887
(Increase) decrease in other assets	1,272	(941)	(339)
Increase (decrease) in accounts payable and accrued liabilities.....	5,654	(2,567)	506
Increase (decrease) in taxes payable/receivable.....	1,515	(497)	(3,914)
Net cash provided by (used in) operating activities	<u>18,434</u>	<u>6,069</u>	<u>(4,093)</u>
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchase of property, plant and equipment.....	(7,904)	(8,279)	(6,843)
Purchase of intangibles.....	(4,633)	(528)	(1,474)
Purchase of investments	-	(738,888)	(222,619)
Proceeds from maturities/sales of investments	-	614,428	228,289
Payments on stock subscription note receivable.....	-	-	247
Other investments.....	-	(500)	(1,250)
Net cash used in investing activities	<u>(12,537)</u>	<u>(133,767)</u>	<u>(3,650)</u>
CASH FLOWS FROM FINANCING ACTIVITIES:			
Net proceeds from (payments on) notes payable to banks.....	(8,095)	2,706	-
Stock options and warrants exercised	226	1,480	1,184
Minority Interest.....	-	-	490
Purchase of treasury stock	-	(4,623)	(2,526)
Net proceeds from equity offering	<u>42,390</u>	<u>128,658</u>	<u>-</u>
Net cash provided by (used in) financing activities	<u>34,521</u>	<u>128,221</u>	<u>(852)</u>
Effect of exchange rate changes on cash and cash equivalents.....	<u>(1)</u>	<u>(241)</u>	<u>(47)</u>
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS.....	40,417	282	(8,642)
CASH AND CASH EQUIVALENTS, beginning of year	4,946	45,363	45,645
CASH AND CASH EQUIVALENTS, end of year.....	<u>\$ 45,363</u>	<u>\$ 45,645</u>	<u>\$ 37,003</u>
SUPPLEMENTAL CASH FLOW INFORMATION:			
Interest paid	<u>\$ 914</u>	<u>\$ 751</u>	<u>\$ 201</u>
Income taxes paid (refunded)	<u>\$ 2,209</u>	<u>\$ 6,197</u>	<u>\$ (808)</u>
SUPPLEMENTAL DISCLOSURE OF NON-CASH INVESTING AND FINANCING ACTIVITIES:			
Value of warrants granted.....	<u>\$ 555</u>	<u>\$ -</u>	<u>\$ -</u>

The accompanying notes are an integral part of these consolidated financial statements.

THREE-FIVE SYSTEMS, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 1999, 2000 and 2001

(1) Organization and Operations:

We design and manufacture display modules for use in the end products of original equipment manufacturers, or OEMs. We currently specialize in custom liquid crystal display, or LCD, components and technology. We collaborate closely with our customers in providing our design and manufacturing services. Our LCD modules are used in mobile handsets and other wireless communication devices as well as in the data collection, medical electronics, and other commercial and consumer marketplaces. We refer to this business as our direct view display business. In 2001, Motorola was our largest customer. In addition to our direct view display business, we are pursuing the commercialization of our liquid crystal-on-silicon, or *LCoS*, microdisplays following substantial research and development over the past several years. We market our services in North America, Europe, and Asia, primarily through a direct technical sales force.

Three-Five Systems Limited (Limited), a wholly owned subsidiary, is incorporated in the United Kingdom. Limited sells and distributes our products to customers on the European continent.

Three-Five Systems Pacific, Inc. (Pacific), a wholly owned Philippines corporation, manufactures our products. Pacific also manages and assists production personnel of a third-party subcontractor that will be engaged until April 2002 when we will completely move into our newly built, leased facility in the Philippines.

Three-Five Systems (Beijing) Co., Ltd. (Beijing), a wholly owned subsidiary, manufactures and sells our products to customers primarily located in Asia.

During the second quarter of 2001, we formed a new subsidiary, Three-D OLED L.L.C. We own 51% of this new subsidiary, and DuPont Displays, a business unit of DuPont Corporation owns, 49%. The companies have pledged \$3.0 million to the venture. Our share of that obligation is slightly over \$1.5 million. This new venture will design, assemble, and market OLED (Organic Light Emitting Diode) display modules to OEMs worldwide. The venture will focus on glass substrate, passive matrix OLED displays. OLED technology utilizes advanced materials to produce bright, high-contrast, emissive displays. The venture will be headquartered in Tempe, Arizona, within our existing corporate headquarters, and controlled by us. The venture will utilize the glass panel output of a new high-volume manufacturing plant located in Taiwan, announced by DuPont and RiTdisplay Technology Corporation. The venture may also use other OLED glass panel sources. OLED display modules will be assembled at our display module assembly facilities in Beijing and Manila. As we control this new subsidiary, it has been consolidated in the accompanying financial statements with DuPont Display's 49% ownership interest accounted for as a minority interest.

(2) Summary of Significant Accounting Policies:

Principles of Consolidation and Preparation of Financial Statements

The consolidated financial statements include our accounts and those of our subsidiaries. All material intercompany transactions and balances have been eliminated.

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Concentration of Credit Risk

Our strategy involves concentrating our efforts on providing design and production services to leading companies in a limited number of fast-growing industries. We have been undertaking substantial efforts to diversify our business, broaden our customer base, and expand our markets. Product sales for our historical major customer accounted for approximately 86%, 87% and 85% of our net sales in 1999, 2000 and 2001, respectively. Sales to this customer related to our direct view display operating segment. Since 1998, no other customer has accounted for more than 10% of our net sales. A significant decrease in orders for our products from our historical major customer or a decline in the cellular telephone industry would result in a material adverse impact on our results of operations and financial position.

The significant amount of sales to a few customers results in certain concentrations of credit risk for us. Our accounts receivable balance at December 31, 2000 and 2001 included 76% and 77%, respectively, from our historical largest customer. The remaining accounts receivable balances are mainly related to customers from our direct view display operating segment. These customers are located primarily in the United States, Asia, and Europe.

Fair Value of Financial Instruments

We have determined the estimated fair value of financial instruments using available market information and valuation methodologies. Estimating fair values requires considerable judgment. Accordingly, the estimates may not be indicative of amounts that would be realized in a current market exchange. The carrying values of cash, accounts receivable, and accounts payable approximate fair value due to the short maturities of these instruments. In addition, at December 31, 2001, the carrying amount on the term loan is estimated to approximate fair value as the actual interest rate is consistent with rates estimated to be currently available for debt with similar terms and remaining maturities.

Cash and Cash Equivalents

For purposes of the statements of cash flows, all highly liquid investments with an original maturity of three months or less are considered to be cash equivalents. Cash equivalents consist of investments in commercial paper, marketable debt securities, money market mutual funds, and U.S. government agencies' obligations. A portion of our funds held in money market mutual funds are invested in repurchase agreements. These repurchase agreements are collateralized by U.S. Treasury and Government obligations. Cash and cash equivalents at December 31 consists of the following (in thousands):

	December 31,	
	2000	2001
Cash and cash equivalents:		
Cash	\$ 3,686	\$ 6,992
Commercial paper	9,106	-
Certificates of deposit	-	5,014
Money market	30,553	10,044
U.S. government agency securities	-	7,445
Corporate notes and bonds	2,300	7,508
	<u>\$ 45,645</u>	<u>\$ 37,003</u>

Investments

Short-term investments have original maturities greater than three months and remaining maturities of less than one year. Debt securities with remaining maturities greater than one year are classified as long-term investments. All short-term and long-term investments are classified as available for sale and are presented at market value using the specific identification method. Unrealized gains and losses are reflected in other comprehensive income. Realized gains and losses are included in results of operations. Short-term and long-term investments consist of the following at (in thousands):

	December 31,	
	2000	2001
Short-term investments:		
Certificates of deposit	\$ 11,303	\$ 14,970
Corporate notes and bonds	55,024	63,883
U.S. government agency securities	16,685	28,967
Commercial paper	36,914	2,196
	<u>\$119,926</u>	<u>\$ 110,016</u>

	December 31,	
	2000	2001
Long-term investments:		
Corporate notes and bonds	<u>\$ 4,534</u>	<u>\$ 9,034</u>

Inventories

Inventories are stated at the lower of cost (first-in, first-out) or net realizable value and consist of the following at (in thousands):

	December 31,	
	2000	2001
Raw materials.....	\$ 15,898	\$ 11,535
Work-in-process.....	1,904	964
Finished goods	2,714	3,130
	<u>\$ 20,516</u>	<u>\$ 15,629</u>

Property, Plant, and Equipment

Property, plant, and equipment is recorded at cost and generally is depreciated using the straight-line method over the estimated useful lives of the respective assets, which range from three to 39 years. Major additions and betterments are capitalized, while replacements, maintenance, and repairs that do not extend the useful lives of the assets are charged to operations as incurred. Depreciation expense totaled \$5,860,000, \$6,024,000, and \$5,212,000 for the years ended December 31, 1999, 2000, and 2001, respectively. Property, plant, and equipment consist of the following at (in thousands):

	December 31,	
	2000	2001
Building and improvements	\$ 16,426	\$ 16,476
Furniture and equipment.....	48,601	53,728
	65,027	70,204
Less accumulated depreciation..	<u>(26,934)</u>	<u>(31,851)</u>
	<u>\$ 38,093</u>	<u>\$ 38,353</u>

We entered into a transaction, in which we conveyed our Tempe, Arizona, facility and certain improvements to the City of Tempe as consideration for a rent-free 75-year lease. We have the option to repurchase the facility for \$1,000 after ten years; therefore, the lease is accounted for as a capital lease. The annual lease payments are approximately \$100,000, subject to certain escalation provisions.

We have a high-volume LCD manufacturing line that is depreciated using the units of production method. During 2001, we elected to move the LCD manufacturing line from Tempe, Arizona, to Asia. As of December 31, 2001, it was not in service as it is still in transit to Asia. We believe that the LCD manufacturing line is stated at its net realizable value at December 31, 2001.

Other Assets

At December 31, 2001, other assets consist primarily of an investment, at cost, in a start-up company in the silicon packaging industry. In the second quarter of 2001, we wrote off a \$3.8 million investment in a start-up display company as we determined the investment was impaired as that term is defined under generally accepted accounting principles. Subsequent to the second quarter of 2001, this start-up company ceased operations.

Intangibles

Intangibles consist of licenses and intellectual property related to our Microdisplay operating segment. Intangibles are recorded at cost and amortized using the straight-line method over the estimated useful lives of the respective assets, which range from two to five years. Our policy is to commence amortization of intangibles when their related benefits are realized. Amortization for the year ended December 31, 2001 amounted to \$749,000.

Accrued Liabilities

Accrued liabilities include, among other things, accrued compensation of approximately \$2,849,000 and \$2,000,000 at December 31, 2000 and 2001, respectively.

Income Taxes

Financial Accounting Standards Board (FASB) Statement of Financial Accounting Standards (SFAS) No. 109, *Accounting for Income Taxes*, requires the use of an asset and liability approach in accounting for income taxes. Deferred tax assets and liabilities are recorded based on the differences between the financial statement and tax bases of assets and liabilities and the tax rates in effect when these differences are expected to reverse.

Foreign Currency Translation

Financial information relating to our foreign subsidiaries is reported in accordance with SFAS No. 52, *Foreign Currency Translation*. The functional currency of Pacific is the same as the local currency. The gain or loss resulting from the translation of Pacific's financial statements has been included as a separate component of stockholders' equity. Non-U.S. assets and liabilities are translated into U.S. dollars using the year-end exchange rates. Revenues and expenses are translated at average rates during the year.

The functional currency of Beijing and Limited is the U.S. dollar. Beijing, however, maintains its books and records in the Renminbi. Therefore, we utilize the remeasurement method of foreign currency translation when Beijing is consolidated. Any resulting remeasurement gain or loss is reported in our consolidated statements of operations.

The net foreign currency transaction loss in 1999, 2000, and 2001 was \$49,000, \$96,000, and \$20,000, respectively, and has been included in other expenses in the accompanying statements of income.

Derivatives

On January 1, 2001, we adopted SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*, which establishes accounting and reporting standards requiring us to recognize derivatives as either assets or liabilities on the balance sheet and to measure those instruments at fair value. The adoption of SFAS No. 133 did not have a material impact on our financial position or results of operation.

We use derivatives to manage exposures to foreign currency fluctuations. The only type of derivative we use is foreign currency forward contracts. Our objectives for holding these forward contracts are to decrease the potential volatility of earnings and cash flows associated with changes in foreign currency exchange rates (see Note 7). The only risk associated with those contracts is the cost of purchasing the contract, which we expense at the expiration of the contract.

Revenue Recognition

We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed or determinable, and collectability is reasonably assured. Generally, all of these conditions are met at the time we ship products to customers. We perform ongoing credit evaluations of all of our customers and consider various factors in establishing our allowance for doubtful accounts and sales returns and allowances, which amounted to \$439,000 and \$259,000 at December 31, 2000 and 2001, respectively. Included in net sales are customer costs associated with shipping and handling.

Research, Development and Engineering

Research, development, and engineering costs are expensed as incurred.

Earnings Per Share

Basic earnings per common share are computed by dividing net income by the weighted average number of shares of common stock outstanding during the year. Diluted earnings per common share are determined assuming that outstanding options and warrants were exercised at the beginning of each year or at the time of issuance, if later. No outstanding options were assumed to be exercised for purposes of calculating diluted earnings (loss) per share for the year ended December 31, 2001, as their effect was anti-dilutive. Set forth below are the disclosures required pursuant to SFAS No. 128 – *Earnings Per Share*:

	Years Ended December 31,		
	1999	2000	2001
	(in thousands, except per share data)		
Basic earnings (loss) per share:			
Income (loss) available to common stockholders	\$ 6,924	\$ 14,834	\$ (17,764)
Weighted average common shares	15,563	20,457	21,401
Basic earnings (loss) per share amount	\$ 0.44	\$ 0.73	(0.83)
Diluted earnings (loss) per share:			
Income (loss) available to common stockholders	\$ 6,924	\$ 14,834	\$ (17,764)
Weighted average common shares	15,563	20,457	21,401
Options and warrants assumed exercised	442	1,179	-
Total common shares plus common stock equivalents	16,005	21,636	21,401
Diluted earnings (loss) per share amount	\$ 0.43	\$ 0.69	\$ (0.83)

Recently Issued Accounting Standards

In June 2001, the FASB issued SFAS No. 141, "Business Combinations," and SFAS No. 142, "Goodwill and Other Intangible Assets." SFAS No. 141 requires companies to apply the purchase method of accounting for all business combinations initiated after June 30, 2001 and prohibits the use of the pooling-of-interest method. SFAS No. 142 changes the method by which companies may recognize intangible assets in purchase business combinations and generally requires identifiable intangible assets to be recognized separately from goodwill. In addition, it eliminates the amortization of all existing and newly acquired goodwill on a prospective basis and requires companies to assess goodwill for impairment, at least annually, based on the fair value of the reporting unit. We will be required to adopt SFAS Nos. 141 and 142 on January 1, 2002. We have reviewed the requirements of SFAS Nos. 141 and 142 and believe that the adoption of these statements will not have a material impact on our financial position or results of operations.

In June 2001, the FASB issued SFAS No. 143, "Accounting for Asset Retirement Obligations." SFAS No. 143 addresses financial accounting and reporting for obligations associated with the retirement of tangible long-lived assets and the associated asset retirement costs. It applies to all entities and legal obligations associated with the retirement of long-lived assets that result from the acquisition, construction, development, and/or the normal operation of the long-lived asset. SFAS No. 143 requires that the fair value of a liability for an asset retirement obligation be recognized in the period in which it is incurred if a reasonable estimate of fair value can be made. The associated asset retirement costs are capitalized as part of the carrying amount of the long-lived asset and are subsequently allocated to expense

over the asset's useful life. We will be required to adopt SFAS No. 143 on January 1, 2003. We have reviewed the requirements of SFAS No. 143 and do not believe that the adoption of this statement will have a material impact on our financial position or results of operations.

In August 2001, the FASB issued SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets." SFAS No. 144 supersedes SFAS No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of," and the accounting and reporting provisions of APB Opinion No. 30, "Reporting the Results of Operations — Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions." SFAS No. 144 modifies the method in which companies account for certain asset impairment losses. We will be required to adopt SFAS No. 144 on January 1, 2002. We have reviewed the requirements of SFAS No. 144 and do not believe the adoption of this statement will have a material impact on our financial position or results of operations.

Reclassifications

Certain amounts on the balance sheet as of December 31, 2000 have been reclassified to conform to the 2001 presentation. These reclassifications have also been reflected on the statements of cash flows for the years ended December 31, 1999 and 2000.

(3) Debt:

Borrowing under line of credit and term loan agreements were as follows at (in thousands):

	<u>December 31,</u>	
	<u>2000</u>	<u>2001</u>
\$15.0 million revolving line of credit, interest due monthly at the bank's prime rate (4.75% at December 31, 2001) or at the LIBOR base rate (1.86% at December 31, 2001) plus 1.5%, unpaid balance due January 31, 2002.....	\$ -	\$ -
\$2.706 million loan due Bank of China, interest due quarterly at 5.85%, due May 8, 2002, secured by a \$3.0 million stand-by letter of credit issued under the \$15.0 million revolving line of credit.	<u>2,706</u>	<u>2,706</u>
	<u>\$2,706</u>	<u>\$ 2,706</u>

In January 2000, we entered into a \$15.0 million unsecured revolving line of credit with Comerica Bank, which matures on January 31, 2002. This line of credit bears interest at the lower of the bank's prime rate, or at the LIBOR base rate plus 1.5%, and provides for monthly payments. The revolving line of credit contains restrictive covenants that include, among other things, restrictions on the declaration or payment of dividends, the sale or transfer of assets, and a specified net worth. We have renewed this line of credit until January 2003.

(4) Stockholders' Equity:

In July 1999, we purchased certain assets and licensed silicon technologies from National Semiconductor relating to liquid crystal on silicon (LCoS™) microdisplays for approximately \$3.0 million in cash and warrants, with a fair market value of \$555,000 as determined by the Black-Scholes option pricing method, to purchase 140,000 shares of common stock at a price of \$8.47 per share, which was the closing price of our company's common stock at the grant date. We issued 102,014 shares of common stock upon exercise of the warrants, and the remaining 37,986 shares were used to effect the exercise on December 20, 2000.

In September 1999, we issued 4,000,226 shares of common stock at \$9.69 per share (the "1999 Offering"). The 1999 Offering involved 4,600,000 shares of common stock consisting of 2,068,686 newly issued shares of our company, 1,931,540 shares issued from treasury, and 599,774 shares sold by an existing stockholder. In October 1999, we issued 690,000 shares of common stock at \$9.69 per share to cover over-allotments pertaining to the 1999 Offering. Expenses for the 1999 Offering totaled \$3,007,000.

On November 8, 1999, our Board of Directors approved a four-for-three stock split, effected in the form of a 33 percent stock dividend. The stock split was effected on December 17, 1999 to stockholders of record at the close of business on December 3, 1999. This stock split has been given retroactive recognition for all periods presented in the accompanying consolidated financial statements.

On April 18, 2000, our Board of Directors approved a three-for-two stock split, to be effected in the form of a 50 percent stock dividend. The Board's approval of the stock split was contingent upon the approval by the stockholders of an increase in the number of authorized shares of common stock, which occurred on April 27, 2000. At that time, the stockholders approved an increase in the number of authorized shares of common stock of our company from 15 million to 60 million. The stock dividend was paid on May 12, 2000 to stockholders of record at the close of business on May 1, 2000. The stock split has been given retroactive recognition for all periods presented in the accompanying consolidated financial statements.

In May 2000, we issued 2,150,000 shares of common stock at \$55.00 per share (the "2000 Offering"). In June 2000, we issued 322,500 shares of common stock at \$55.00 per share to cover over-allotments pertaining to the 2000 Offering. Expenses for the 2000 Offering totaled \$7,341,000.

On December 7, 2000, our Board of Directors authorized a stock repurchase program whereby our company, at the discretion of management, could buy back up to \$30.0 million of our common stock in the open market. During the year ended December 31, 2000, we purchased 241,381 shares at a cost of \$4,623,000. During the year ended December 31, 2001, we purchased 149,197 shares at a cost of \$2,526,000.

During the second quarter of 2001, our Board of Directors adopted a stockholder rights plan (the "Rights Plan"). Under the Rights Plan, we issued a dividend of one Preferred Share Purchase Right (the "Right") for each share of common stock of our company held by stockholders of record as of the close of business on May 14, 2001. Each Right entitles stockholders to buy one one-thousandth (1/1000th) of a share of Series A Junior Participating Preferred Stock of our company at an exercise price of \$120.00 (subject to adjustment). The Rights Plan was not adopted in response to any specific takeover threat. The Rights Plan, however, was designed to assure that all of our stockholders receive fair and equal treatment in the event of any proposed takeover of our company, and to guard against coercive or unfair tactics to gain control of our company without paying all stockholders a premium for that control.

(5) Benefit Plans:

We have five stock option plans: the 1990 Stock Option Plan (1990 Plan), the 1993 Stock Option Plan (1993 Plan), the 1994 Non-Employee Directors Stock Option Plan (1994 Plan), the 1997 Stock Option Plan (1997 Plan), and 1998 Stock Option Plan (1998 Plan).

1990 Stock Option Plan

Under the 1990 Plan, there were options issued but unexercised to purchase 96,106 shares as of December 31, 2001. The 1990 Plan expired on May 1, 2001, at which time all unissued options expired.

The expiration date, maximum number of shares purchasable, and the other provisions of the options granted under the 1990 Plan were established at the time of grant. Options were granted for terms of up to ten years and became exercisable in whole or in one or more installments at such times as were determined by the Board of Directors upon grant of the options.

1993 Stock Option Plan

The 1993 Plan provides for the granting of options to purchase up to 770,909 shares of our common stock, the direct granting of common stock (stock awards), the granting of stock appreciation rights (SARs), and the granting of other cash awards (stock awards, SARs, and cash awards are collectively referred to herein as Awards). Under the 1993 Plan, options and Awards may be issued to key personnel and others providing valuable services to our company. The options issued may be incentive stock options or nonqualified stock options. If any option or SAR terminates or expires without having been exercised in full, stock not issued under such option or SAR will again be

available for grant pursuant to the 1993 Plan. There were options outstanding to acquire 373,522 shares of our company's common stock under the 1993 Plan at December 31, 2001.

To the extent that granted options are incentive stock options, the terms and conditions of those options must be consistent with the qualification requirement set forth in the Internal Revenue Code of 1986 (the Code). The expiration date, maximum number of shares purchasable, and the other provisions of the options will be established at the time of grant. Options may be granted for terms of up to ten years and become exercisable in whole or in one or more installments at such time as may be determined by the plan administrator upon grant of the options. The exercise prices of options are determined by the plan administrator, but may not be less than 100% (110% if the option is an incentive stock option granted to a stockholder who at the time the option is granted owns stock representing more than 10% of the total combined voting power of all classes of stock of our company) of the fair market value of the common stock at the time of the grant. The 1993 Plan will remain in force until February 24, 2003.

1994 Non-Employee Directors Stock Option Plan

The 1994 Plan provides for the automatic grant of stock options to non-employee directors to purchase up to 100,000 shares of our common stock. On April 26, 2001, the stockholders approved a proposal to amend our 1994 Automatic Stock Option Plan for Non-Employee Directors (the "1994 Plan"). Now, under the 1994 Plan, options to acquire 2,000 shares of common stock will be automatically granted to each non-employee director at the meeting of our Board of Directors held immediately after each annual meeting of stockholders, with such options to vest in a series of 12 equal and successive monthly installments commencing one month after the annual automatic grant date. In addition, each non-employee director serving on our Board of Directors on the date the 1994 Plan was approved by our stockholders received an automatic grant of options to acquire 5,000 shares of common stock and each subsequent newly elected non-employee member of our Board of Directors receives an automatic grant of options to acquire 5,000 shares of common stock on the date of their first appointment or election to our Board of Directors. Those options become exercisable and vest in a series of three equal and successive annual installments, with the first such installment becoming exercisable immediately after the director's second successive election to our Board of Directors (the First Vesting Date), the second installment becoming exercisable 10 months after the First Vesting Date, and the third installment becoming exercisable 22 months after the First Vesting Date (provided that the director has not ceased serving as a director prior to a vesting date). A non-employee member of our Board of Directors is not eligible to receive the 2,000 share automatic option grant if that option grant date is within 30 days of such non-employee member receiving the 5,000 share automatic option grant. The exercise price per share of common stock subject to options granted under the 1994 Plan will be equal to 100% of the fair market value of our common stock on the date such options are granted. There were outstanding options to acquire 30,260 shares of our common stock under the 1994 Plan at December 31, 2001.

1997 Stock Option Plan

On January 27, 2000, our Board of Directors increased the number of shares of our company's common stock available for issuance under the 1997 Plan from 200,000 to 350,000. On August 3, 2000, our Board of Directors increased the number of shares of our common stock available for issuance under the 1997 Plan from 350,000 to 650,000.

The 1997 Plan provides for the granting of nonqualified options. Under the 1997 Plan, options may be issued to key personnel and others providing valuable services to our company. The options issued will be nonqualified stock options and shall not be incentive stock options as defined in Section 422 of the Code. Any option that expires or terminates without having been exercised in full will again be available for grant pursuant to the 1997 Plan. There were options outstanding to acquire 593,494 shares of our common stock under the 1997 Plan at December 31, 2001.

The expiration date, maximum number of shares purchasable, and the other provisions of the options will be established at the time of grant. Options may be granted for terms of up to ten years and become exercisable in whole or in one or more installments at such time as may be determined by the plan administrator upon grant of the options. The exercise prices of the options are determined by the plan administrator, but may not be less than 100%

of the fair market value of the common stock at the time of the grant. The 1997 Plan will remain in force until May 12, 2007.

1998 Stock Option Plan

During 1999, the stockholders approved an amendment to the 1998 Plan to increase the number of shares of our common stock that may be issued from 600,000 to 1,100,000.

The 1998 Plan provides for the granting of incentive stock options and/or nonqualified options. Under the 1998 Plan, options may be issued to key personnel and others providing valuable services to our company. The options issued will be incentive stock options or nonqualified stock options as defined in Section 422 of the Code. Any option that expires or terminates without having been exercised in full will again be available for grant pursuant to the 1998 Plan. There were options outstanding to acquire 985,239 shares of our common stock under the 1998 Plan at December 31, 2001.

The expiration date, maximum number of shares purchasable, and the other provisions of the options will be established at the time of grant. Options may be granted for terms of up to ten years and become exercisable in whole or in one or more installments at such time as may be determined by the plan administrator upon grant of the options. The exercise prices of the options are determined by the plan administrator, but may not be less than 100% of the fair market value of the common stock at the time of the grant (110% if the option is an incentive stock option granted to a stockholder who at the time the option is granted owns stock representing more than 10% of the total combined voting power of all classes of stock of our company). The 1998 Plan will remain in force until January 28, 2008.

Tax benefits from option exercises are credited to additional paid-in capital.

The following table and narrative summarizes the status of our five stock option plans at December 31, 1999, 2000, and 2001 and changes during the years then ended:

	1999		2000		2001	
	Options	Weighted Average Exercise Price	Options	Weighted Average Exercise Price	Options	Weighted Average Exercise Price
Outstanding at beginning of year	1,399,750	\$ 6.10	1,737,397	\$ 7.76	1,974,668	\$ 14.75
Granted	1,021,957	8.51	528,873	33.95	534,995	19.44
Exercised	(157,475)	1.94	(228,063)	7.46	(235,665)	6.55
Expired or canceled	(526,835)	6.56	(63,539)	9.58	(195,377)	36.20
Outstanding at end of year	<u>1,737,397</u>	7.76	<u>1,974,668</u>	14.75	<u>2,078,621</u>	14.87
Exercisable at end of year	<u>447,707</u>	<u>\$ 6.73</u>	<u>485,050</u>	<u>\$ 7.12</u>	<u>618,236</u>	<u>\$ 9.81</u>
Weighted average fair value of options granted.....		<u>\$ 6.54</u>		<u>\$ 27.24</u>		<u>\$ 15.76</u>

The following table summarizes information about stock options outstanding at December 31, 2001:

	Options Outstanding			Options Exercisable		
	Number Outstanding at December 31, 2001	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price	Number Exercisable at December 31, 2001	Weighted Average Exercise Price	
Range of Exercise Prices						
\$ 0.32 - \$7.46	479,506	6.3	\$ 5.81	296,698	\$ 5.63	
7.47 - 14.92	707,716	7.4	9.39	253,127	9.29	
14.93 - 74.63	891,399	8.8	24.09	68,411	29.88	
	<u>2,078,621</u>	<u>7.8</u>	<u>\$ 14.87</u>	<u>618,236</u>	<u>\$ 9.81</u>	

Pursuant to the provisions of SFAS No. 123, *Accounting for Stock-Based Compensation*, we account for transactions with our employees pursuant to Accounting Principles Board Opinion (APB) No. 25, *Accounting for Stock Issued to Employees*, under which no compensation cost has been recognized. However, we have computed, for pro forma disclosure purposes, the value of all options granted during 1999, 2000, and 2001, using the Black-Scholes option pricing method with the following weighted assumptions: risk-free interest rates of 6.34%, 4.75%, and 4.42%; expected dividend yields of zero; expected lives of 6.2, 6.2, and 6.1 years; and expected volatility (a measure of the amount by which a price has fluctuated or is expected to fluctuate during a period) of 61.9%, 72.6%, and 74.5%, respectively. Had compensation cost for these plans been determined consistent with SFAS No. 123, our net income and earnings per share would have been as follows:

	Years Ended December 31,		
	1999	2000	2001
	(in thousands, Except per share data)		
Net income (loss):			
As reported	\$ 6,924	\$ 14,834	\$ (17,764)
Pro forma	5,423	13,000	(20,987)
Basic earnings (loss) per share:			
As reported	\$ 0.44	\$ 0.73	\$ (0.83)
Pro forma	0.35	0.64	(0.98)
Diluted earnings (loss) per share:			
As reported	\$ 0.43	\$ 0.69	\$ (0.83)
Pro forma	0.34	0.60	(0.98)

401(k) Profit Sharing Plan

We have adopted a profit sharing plan (401(k) Plan) pursuant to Section 401(k) of the Code. The 401(k) Plan covers substantially all full-time employees who meet the eligibility requirements and provides for a discretionary profit sharing contribution by us and an employee elective contribution with a discretionary matching provision by our company. We expensed discretionary contributions pursuant to the 401(k) Plan in the amount of \$159,000, \$207,000, and \$262,000 for the years ended December 31, 1999, 2000, and 2001, respectively.

Pension Plan

On June 1, 2001, Pacific adopted a defined benefit pension plan (the Pension Plan), covering most regular Pacific employees. As of December 31, 2001, no funding of the plan had occurred. Net periodic pension cost of \$95,000 was recorded during the year ended December 31, 2001. In addition, at December 31, 2001, the projected benefit obligation of \$349,000 is included in accrued liabilities.

(6) Income Taxes:

The provision (benefit) for income taxes for the years ended December 31 consists of the following (in thousands):

	1999	2000	2001
Current provision (benefit), net of tax credits utilized:			
Federal, net of tax benefit from stock option exercises	\$2,619	\$4,641	\$ (5,555)
States	210	45	-
Foreign.....	<u>832</u>	<u>780</u>	<u>797</u>
	3,661	5,466	(4,758)
Deferred benefit.....	(723)	(626)	(4,575)
Tax benefit from stock option exercises	30	674	588
Provision for income taxes	<u>\$2,968</u>	<u>\$5,514</u>	<u>\$ (8,745)</u>

In accordance with SFAS No. 109, tax credits of approximately \$115,000, \$1,244,000, and \$0 were utilized in 1999, 2000, and 2001, respectively, and are included as a reduction of the current provision for income taxes in the consolidated statements of income.

The components of deferred taxes at December 31 are as follows (in thousands):

	2000	2001
Net short-term deferred tax assets:		
Uniform capitalization.....	\$ 1,071	\$ 1,224
Accrued liabilities and reserves not currently deductible	3,102	2,405
Allowance for doubtful accounts.....	150	76
Other	<u>23</u>	<u>225</u>
	<u>\$ 4,346</u>	<u>\$ 3,930</u>
Net long-term deferred tax (liabilities)/assets:		
Accelerated tax depreciation.....	\$ (4,110)	\$ (4,556)
Net operating loss and tax credit carryforward.....	-	5,153
Capital loss carryforward.....	-	1,299
Valuation allowance against capital loss carryforward.....	-	(1,299)
Investments in foreign affiliates	<u>(377)</u>	<u>(378)</u>
	<u>\$ (4,487)</u>	<u>\$ 219</u>

A reconciliation of the U.S. federal statutory rate to our effective tax rate is as follows:

	1999	2000	2001
Statutory federal rate	34%	35%	(34%)
Effect of state taxes	3	2	-
Foreign earnings taxed at different rates	(4)	(5)	(3)
Other, net.....	3	-	1
Valuation Allowance.....	-	-	5
Benefit from prior year state refund claims.....	(6)	-	-
Credits for research and experiment	<u>-</u>	<u>(5)</u>	<u>(2)</u>
	<u>30%</u>	<u>27%</u>	<u>(33)%</u>

A deferred U.S. tax liability has not been provided on the undistributed earnings of certain foreign subsidiaries because it is our intent to permanently reinvest such earnings. Undistributed earnings of foreign subsidiaries, which have been, or are intended to be, permanently invested in accordance with APB No. 23, *Accounting for Income Taxes - Special Areas*, aggregated approximately \$4,288,000 and \$4,901,325 at December 31, 2000 and 2001, respectively.

Although losses are expected to continue in the near term, as of December 31, 2001, in accordance with SFAS No. 109, no valuation allowance has been recorded related to our net operating loss and tax credit carryforward, as we believe that the full realization of these deferred tax assets is more likely than not.

(7) Commitments and Contingencies:

Rent and Lease

In April 2001, Pacific began its lease of a build-to-suit factory in Manila. The term of the lease is 125 months. We employ our own employees at this new factory. Pacific still employs a third-party subcontractor in Manila at our original factory site to provide some direct labor services. The third-party subcontractor operates a facility utilizing equipment, processes, and documentation owned by us.

Our future lease commitments under the non-cancelable operating leases as of December 31, 2001 are as follows (in thousands):

2002.....	\$ 1,125
2003.....	921
2004.....	1,048
2005.....	1,040
Thereafter	<u>11,776</u>
	<u>\$ 15,910</u>

Rent expense was approximately \$763,000, \$553,000, and \$712,000 for the years ended December 31, 1999, 2000, and 2001, respectively.

Guarantee

We have guaranteed up to \$500,000 of the debt of a start-up company, VoiceView Technology, Inc., a private company developing microdisplay products. We will be required to pay this guarantee to the lender if the start-up company defaults on its debt obligations.

Legal Proceedings

We are involved in certain administrative proceedings arising in the normal course of business. In our opinion, the ultimate settlement of these administrative proceedings will not materially impact our financial position or results of operations.

Derivative Instruments

We have certain receivables denominated in Chinese Renminbi. To eliminate our exposure to changes in the U.S. dollar/Chinese Renminbi exchange rate, we have entered into forward contracts to protect our future cash flows. Our forward contracts generally range from one to six months in original maturity. In accordance SFAS No. 133, we designate such forward contracts as cash flow hedges. We account for changes in the fair value of our forward contracts, based on changes in the forward exchange rate, with all such changes in fair value reported in other comprehensive income. Amounts in other comprehensive income are reclassified into earnings upon settlement of the forward contract at an amount that will offset the related transaction gain or loss arising from the re-measurement and adjust earnings for the cost of the forward contracts. During 2001, there were no significant gains or losses recognized in earnings for hedge ineffectiveness. As of December 31, 2001, there were four forward contracts outstanding with a cumulative notional value of \$4.0 million, expiring through April 2002. Also, we did not discontinue any hedges because it was probable that the original forecasted transaction would not occur.

(8) Segment Information:

We monitor and evaluate the financial performance of our operations by our two product lines (operating segments): direct view display and microdisplay. The direct view display operating segment consists of products that employ an LCD (Liquid Crystal Display) to present information to the user. The microdisplay operating segment consists of products that employ a Liquid Crystal on Silicon (LCoS) display to present information to the user. The accounting policies of the operating segments are the same as those described in Note 2, *Summary of Significant Accounting Policies*. Non-specific operating segment expenses were allocated based upon estimated

usage. Interest income was all assigned to the direct view display operating segment. The worldwide average tax rate was used for all segments. The following includes financial information (in thousands, except share data) for our two operating segments:

	Direct View Display	Microdisplay	Total
December 31, 1999			
Net sales	\$ 147,210	\$ 198	\$ 147,408
Other expenses	(18)	-	(18)
Provisions for (benefit from)			
income taxes	4,903	(1,935)	2,968
Net income (loss)	11,440	(4,516)	6,924
Earnings (loss) per share	0.71	(0.28)	0.43

	Direct View Display	Microdisplay	Total
December 31, 2000			
Net sales	\$ 159,369	\$ 1,315	\$ 160,684
Other income	7,184	-	7,184
Provision for (benefit from)			
income taxes	7,770	(2,256)	5,514
Net income (loss)	20,904	(6,070)	14,834
Earnings (loss) per share	0.97	(0.28)	0.69

	Direct View Display	Microdisplay	Total
December 31, 2001			
Net Sales	\$ 117,234	\$ 1,902	\$ 119,136
Other income (expenses)	7,270	(3,820)	3,450
Benefit from income taxes	(1,832)	(6,913)	(8,745)
Net loss	(3,732)	(14,032)	(17,764)
Loss per share	(0.17)	(0.66)	(0.83)

On January 1, 2000, we also began tracking net sales and long-lived assets data by geographic location. Net sales by geographic area are determined based upon the location of the end customer while long-lived assets are based upon the physical location of our company's assets. The following includes financial information (in thousands) for our geographic areas:

	North America	China	Other Foreign	Total
December 31, 2000				
Net Sales	\$ 25,414	\$ 61,835	\$ 73,435	\$ 160,684
Long-lived assets, gross	40,869	11,453	17,866	70,188
December 31, 2001				
Net Sales	\$ 20,026	\$ 48,310	\$ 50,800	\$ 119,136
Long-lived assets, gross	45,707	12,739	18,393	76,839

(9) Selected Quarterly Financial Data (Unaudited)

The following table summarizes the unaudited consolidated quarterly results of operations as reported for 2000 and 2001 (in thousands, except per share amounts):

	Quarters Ended							
	2000				2001			
	Mar. 31	June 30	Sep. 30	Dec. 31	Mar. 31	June 30	Sep. 30	Dec. 31
Net sales	\$ 39,162	\$ 44,926	\$ 40,231	\$ 36,365	\$ 35,616	\$ 25,013	\$ 26,594	\$ 31,913
Gross profit (loss)	9,802	10,769	9,116	6,273	4,373	(7,147)	(859)	1,255
Net income (loss)	3,587	4,369	4,345	2,533	242	(11,348)	(3,996)	(2,662)
Earnings (loss) per Common share:								
Basic	\$ 0.19	\$ 0.22	\$ 0.20	\$ 0.12	\$ 0.01	\$ (0.53)	\$ (0.19)	\$ (0.12)
Diluted	0.18	0.21	0.19	0.11	0.01	(0.53)	(0.19)	(0.12)

(10) Events Subsequent to the Date of the Auditors' Report (Unaudited)

In January 2002, we purchased certain intellectual property as well as certain assets from an emerging display company for approximately \$2.6 million.

In 1991, we received a notice of potential liability at the Barkhamsted-New Hartford Landfill Site (the "Landfill") in Barkhamsted, Connecticut from the United States Environmental Protection Agency ("EPA"). Fifty-seven other entities received similar letters. In January 1992, we received a 104(e) questionnaire from the EPA which was completed and submitted during 1992. We received verbal notification that we had no further liability in the matter. According to the EPA, groundwater contamination at the site, which includes volatile and semi-volatile organic compounds and low concentrations of metals, constitutes a low-level threat. As a result of previous actions at the site, groundwater is the only medium requiring additional cleanup. All source material and principal threats have been addressed through the landfill capping and related activity completed in 1999. On February 28, 2002, we received notification from the EPA that the EPA believes we are an involved party and indicated that the EPA was seeking to negotiate an agreement with the involved parties to fund the EPA's chosen remedy of monitored natural attenuation of the groundwater. The EPA indicated that further notification would be made in the next 60 days, which notification will include the names of any other involved parties. We are evaluating our potential liability at the site. The Landfill is a semi-active waste disposal area consisting of 97.84 acres located in Barkhamsted and New Hartford, Connecticut. The Landfill is owned and operated by the Administrative Board of Regional Refuse Disposal and began operating as a landfill in 1974. Industrial wastes were received by the Landfill until 1993, and the Landfill was closed in 1995. The EPA has conducted a Remedial Investigation/Feasibility Study and issued a Proposed Plan to clean up the site.

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President's letter continued

becoming clear that microdisplays are revolutionary, and that they will have dramatic impact on a variety of consumer products in the near future.

Although we made significant progress on many fronts, I am not satisfied with our microdisplay results to date. Our initial forecast for microdisplay shipments did not materialize in 2001, for a couple of reasons.

First, we underestimated the task of launching a revolutionary product in a brand new industry. While we are currently meeting our customers' expectations with regard to quality and performance of our microdisplay imager, we had hoped for those results earlier in the year.

Second, the convergence and optimization of other supporting technologies did not occur as planned. Although significant progress was made this year, the time required to make that progress delayed the launch of OEM products.

This past year has also provided us the ability to increase dramatically our understanding of this technology, and what is required to launch a truly successful microdisplay product. This came not only from our own work inside Three-Five Systems, but also from our exposure to and interaction with other companies in the growing microdisplay community. We saw many competitors fall by the wayside this year, having exhausted their resources before a successful product introduction. In contrast, our financial strength and endurance are allowing us to select from a variety of microdisplay companies for intellectual property licensing, technology acquisitions, full company acquisitions, and the recruitment of top talent.

OUTLOOK

During early 2002, we completed the acquisition of selected assets and all the intellectual property belonging to Zight Corporation, a leading near-to-the-eye LCoS microdisplay developer, formerly known as Colorado Microdisplay. We also hired several key technical people formerly associated with Zight, including the top scientists. I am very pleased with this acquisition because, for a modest investment, it vaults us into a leadership position in the near-to-the-eye market for microdisplays.

We are actively seeking other microdisplay acquisitions. We continue to assess a variety of opportunities, and have recently hired an investment banking firm to help us identify and capture any microdisplay and direct view LCD opportunities that will truly add value to our company.

I remain firmly committed to this revolutionary technology. And feedback from our customers tells us that they are equally committed. We recently signed an agreement with a company called China Display, located in Shanghai. Together our companies will develop high-performance light engines using Three-Five's microdisplay technology. The light engines will be targeted at multimedia projectors and rear-projection, high-definition televisions manufactured by China Display as well as other original equipment manufacturers. China Display is a new customer to us, and is one of just a few companies in China funded by the government to develop LCoS based TVs and projectors.

With customers like China Display, we continue to see the global microdisplay community grow. This is a necessary step to the ongoing development of the industry and the technology. Currently, two major IC silicon foundries are supporting microdisplay development. Our partner, UMC, has even created a separate group within the company to address this rapidly developing product. We will continue to seek out partners from among this growing community in order to fortify our presence, and help launch the industry.

We will also continue to play an important role as the only US-based microdisplay manufacturer, in the Taiwan Consortium. This group was formed last year to focus on the emerging LCoS microdisplay technology, and to develop standards of performance that will facilitate its growth in the years to come. We believe our role there has already provided us with inroads to many new customers in Taiwan, and we plan to remain actively involved to the fullest extent possible.

Internally, we have very recently reorganized to define microdisplays as a formal business unit. This move will help focus our microdisplay efforts throughout the company on product commercialization. It will also allow our research and development groups to focus more energy on next generation microdisplay technology.

Let me close by stating that in 2001 our financial strength and focus have allowed us to make the important decisions and plans necessary for our future growth. As we move into 2002, we will continue to focus on three key areas: 1) securing profitable new design wins with existing customers; 2) diversifying with design wins for new customers and new markets using our full portfolio of technologies; and 3) driving microdisplays into the market.

Sincerely,



Jack L. Saltich
President and CEO

There are certain statements in this Annual Report that are forward looking. Those statements usually describe potentialities with regard to the company and generally use such words as "intends," "expects," "anticipates," or "believes." For example, there are statements regarding estimated future income results, possible revenue growth, revenue growth patterns, future product strategies, new product demand and applications, plans regarding China operations, future profitability, and estimated margins. Each forward-looking statement in this Annual Report is speculative in nature and involves risks and uncertainties. The risks relative to new products like LCoS™ include market and customer acceptance of new product technologies and technical, engineering, and production challenges associated with developing, manufacturing and marketing these new products. Other risks and uncertainties with regard to future operations of the company would include the ability of the company to secure future production orders, product demand and market acceptance risks for the customers' products, the impact of the world-wide foreign currency market on OEM sales, the impact of pricing and performance of LCD modules supplied by competitors of the company, the impact of competitive manufacturing, the risk of having one or two customers account for the majority of its business, technological difficulties, including difficulties in manufacturing and R&D development, and capacity and supply constraints or difficulties.

Readers of this Annual Report should be cautioned that the actual results of the company may materially differ from the forward-looking statements described above. For a more complete description of the various risks and uncertainties associated with the company's business, readers are directed to the company's Securities and Exchange Commission filings, especially those most recently filed, such as the Form 10K.

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